



**DRAFT**  
**Environmental Impact Report**  
**East Pleasanton Specific Plan Project**  
**City of Pleasanton, Alameda County, California**

State Clearinghouse No. 2013102040

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## ACRONYMS AND ABBREVIATIONS

ABAG	Association of Bay Area Governments
ACM	asbestos-containing materials
ADA	Americans with Disabilities Act
afy	acre-feet per year
AHERA	Asbestos Hazard Emergency Response Act
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
APA	Airport Protection Area
APN	Assessor’s Parcel Number
ARB	California Air Resources Board
AST	aboveground storage tank
ATCM	Airborne Toxic Control Measures
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practices
BVOC	biogenic volatile organic compound
C	Celsius
CAAQS	California Ambient Air Quality Standards
Cal OSHA	California Occupational Health and Safety Administration
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CGS	California Department of Conservation, California Geological Survey
CH <sub>4</sub>	methane
CHL	California Historical Landmarks
CLOMR	Conditional Letter of Map Revision
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub> e	carbon dioxide equivalent
CPUC	California Public Utilities Code

**Acronyms and Abbreviations**

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CRHR	California Register of Historical Resources.
dB	decibel
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DSRSD	Dublin San Ramon Services District
EBRPD	East Bay Regional Park District
EDR	Environmental Data Resources
EIR	Environmental Impact Report
EMF	electromagnetic field
EMS	emergency medical services
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
F	Fahrenheit
FAA	Federal Aviation Administration
FAR	floor area ratio
FCS	FirstCarbon Solutions
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GWh/y	gigawatt-hours per year
GWP	global warming potential
HCM	Highway Capacity Manual
HFC	hydrofluorocarbon
I	Interstate
ICC	International Code Council
ISO	Insurance Services Office
LAVTA	Livermore Amador Transit Authority
LAVWMA	Livermore-Amador Valley Water Management Agency
LBP	lead-based paints
L <sub>dn</sub>	day/night average sound level
L <sub>eq</sub>	equivalent sound level
LOS	Level of Service
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MLD	most likely descendant
mph	miles per hour
MRZ	Mineral Resource Zone
N <sub>2</sub> O	nitrous oxide

NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NO <sub>2</sub>	nitrogen dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwestern Information Center
O <sub>3</sub>	ozone
OHWM	ordinary high water mark
OSD	City of Pleasanton Operations Services Department
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
pCi/l	picocuries per liter
PG&E	Pacific Gas and Electric Company
PGC	Pleasanton Gravel Company
PM <sub>x</sub>	particulate matter
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PUC	Public Utilities Code
PUD	Planned Unit Development
RCRA	Federal Resource Conservation and Recovery Act
RHNA	Regional Housing Needs Allocation
RMP	Risk Management Plan
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
RWTF	Recycled Water Treatment Facility
SF <sub>6</sub>	sulfur hexafluoride
SLIC	Spills, Leaks, Investigations and Cleanup
SMARA	Surface Mining and Reclamation Act
SO <sub>2</sub>	sulfur dioxide
SR	State Route
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants

**Acronyms and Abbreviations**

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TDS	total dissolved solids
Tg	teragram
therms/y	therms per year
TPH-d	total petroleum hydrocarbons quantified as diesel
TPH-mo	total petroleum hydrocarbons quantified as motor oil
UGB	Urban Growth Boundary
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
UWMP	Urban Water Management Plan
WDR	Waste Discharge Requirements
WEAP	Worker Environmental Awareness Program
WSA	Water Supply Assessment

## EXECUTIVE SUMMARY

### Purpose

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the East Pleasanton Specific Plan (State Clearinghouse No. 2010022024). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

The purpose of this Draft EIR is to inform decision makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from implementation of the Base Plan (proposed project). This Draft EIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be mitigated or avoided.

The Specific Plan and this Draft EIR were prepared concurrently. This process provided the opportunity for mitigation measures for otherwise potentially significantly impacts to be incorporated directly into the Specific Plan. The result of this is a “mitigated plan,” or a specific plan that contains many of the environmental mitigations within its text. This approach allowed for a more interactive exchange of information between the Task Force that oversaw the preparation of the Specific Plan and the evaluation the environmental consequences of the Specific Plan as outlined by the Base Plan.

### Project Summary

#### Project Location

The East Pleasanton Specific Plan (Specific Plan) area encompasses 1,110 acres, partially within the City of Pleasanton and partially within the unincorporated jurisdiction of Alameda County (Plan Area). The entire Plan Area is within the Pleasanton General Plan Planning Area and Pleasanton’s Sphere of Influence. The Specific Plan boundaries are located on the Livermore, California, United States Geological Survey 7.5-minute quadrangle, Township 3 South, Range 1 East, Unsectioned (Latitude: 37°40’15” North; Longitude: 121°51’30” West).

#### Project Setting

The 1,110-acre Plan Area is part of the larger Livermore-Amador Valley Quarry Area Reclamation Plan lands, and nearly the entire Plan Area has been mined for aggregate in the past. Three man-made lakes—Cope Lake, Lake H, and Lake I—and immediately surrounding lands encompass approximately 704 acres of the Plan Area. Lakes H and I are part of a series of lakes commonly known as the “Chain of Lakes” that evolved as mineral resources were extracted and the resulting “pits” filled with groundwater. These lakes provide a number of valuable water-related functions,

including stormwater management, seasonal water storage, groundwater recharge, and wildlife habitat. Reclaimed quarry lands constitute much of the remainder of the Plan Area.

The southwest portion of the Plan Area includes the City of Pleasanton Operations Service Center (86,000 square feet of building space on 17 acres), Pleasanton Transfer Station and Recycling Center (53,500 square feet of building space on 7.7 acres), and areas previously disturbed by industrial land uses. Five additional buildings are located in the southern portion of the Plan Area: a 12,000-square-foot office building, a 12,150-square-foot shop building, a 10,350-square-foot warehouse, a 900-square-foot storage shed, and a 7,200-square-foot truck shop building.

## Property Ownership and Land Existing Uses

The main property owners and existing land uses within the Plan Area are described below.

### Zone 7 Water Agency

The Zone 7 Water Agency provides flood protection to eastern Alameda County and delivers drinking water to retailers serving more than 200,000 people in Pleasanton, Livermore, Dublin, and the Dougherty Valley area (Zone 7 Water Agency 2012). Within the Plan Area, the Zone 7 Water Agency lands consist of 588.5 acres, including Lake I and Cope Lake and the banks surrounding them.

- Lake I dominates the northwestern portion of the Plan Area and has steep banks. A recreational corridor with a walking trail is presently located along its western bank.
- Cope Lake dominates the middle and eastern portion of the Plan Area and has areas of steep banks. Adjacent to the north of Cope Lake is a pumping facility owned and operated by Zone 7.
- Lake H is owned by the Pleasanton Gravel Company (PGC) but is scheduled to be dedicated to Zone 7 in 2017.

Accordingly, Zone 7 is anticipated to own approximately 704 of the 1,110 acres within the Plan Area by 2017. Lands owned and operated by Zone 7 are considered Alameda County property and are not subject to the City of Pleasanton zoning regulations related to land use (City of Pleasanton 2012).

### Legacy/Lionstone Group

The Legacy/Lionstone Group property consists of 331 acres within the southern portion of the Plan Area that straddles the Pleasanton city-limits. Within the city limits, south of the current terminus of Busch Road, the Legacy/Lionstone lands include former building locations, ruderal vegetation, and debris piles. The southeastern portion of the Legacy/Lionstone lands appears highly disturbed from past industrial activities and includes scattered debris and soil piles and ruderal vegetation. High-voltage lines extend along the southern border of the property along the Union Pacific Railroad tracks and Stanley Boulevard. Most of the northern Legacy/Lionstone lands have been mined and reclaimed, and contain areas of ruderal vegetation. A private extension of El Charro Road extends through the middle of the northern Legacy/Lionstone lands.



## **City of Pleasanton’s Operations Service Center**

The City of Pleasanton’s Operations Service Center consists of 17 acres on the north side of Busch Road within the city-limits. This site is developed with a series of corporation yard uses, including office space, storage yards, facility maintenance related equipment and materials, police firing range, and fire department training facility.

## **Pleasanton Transfer Station and Recycling Center**

The Pleasanton Transfer Station and Recycling Center consists of 7.7 acres on the south side of Busch Road in the southern portion of the Plan Area, east of the Kiewit property. The site contains a large warehouse where refuse is sorted, exterior sorting areas, vehicle parking areas, debris piles, other industrial buildings, scale and scale house, and an office building.

## **Pleasanton Gravel Company**

The Pleasanton Gravel Company (PGC) lands consist of 115.5 acres in the northeastern portion of the Plan Area, which contains Lake H. PGC currently owns Lake H, but it is scheduled to be dedicated to the Zone 7 Water Agency in 2017.

## **Kiewit Infrastructure Company**

The Kiewit property consists of 50.4 acres on the south side of Busch Road within the city limits at the southwest corner of the Plan Area. It contains three storage/office buildings. The remainder of the site is vacant and consists of ruderal vegetation and large areas of concrete pads. High-voltage lines extend along the Valley Avenue frontage of the property.

## **Existing Circulation System**

Existing public circulation within the Plan Area is limited, consisting of Busch Road extending east from Valley Avenue to an access-controlled gate east of the Pleasanton Transfer Station and Recycling Center. Public access is also limited from the north by a gate located south of Arroyo Mocho Canal. A north/south-oriented paved road, located between Lake I and Lake H/Cope Lake, connects the two access controlled gates. An east/west oriented gravel roadway is also located between Lake H and Cope Lake.

## **Project Description**

### **Overview**

The purpose of the Specific Plan is to provide guidance for the coordination of the basic land use pattern, development and design standards and guidelines, circulation network and other public infrastructure, environmental protection, financing, and implementation requirements for development of the Plan Area. Implementation of the Specific Plan would include rezoning, pre-zoning, and eventual annexation of a portion of the Plan Area to the City of Pleasanton.

### **Development Potential**

The Base Plan was developed by the Task Force and selected by the City Council. The Base Plan includes 1,300 housing units and approximately 1.6 million square feet of retail, office, and industrial

building space. Table ES-1 summarizes the development potential of the Base Plan. Alternatives to the Base Plan are discussed in Section 5, Alternatives to the Proposed Project.

**Table ES-1: Specific Plan Land Use Summary**

Land Use Type	Residential Units	Building Square Footage	Gross Acreage
Residential	1,300	—	215
Retail	—	91,000 <sup>1</sup>	7 <sup>1</sup>
Campus Office	—	442,000	24
Industrial	—	1,057,000 <sup>2</sup>	84
Destination Use	—	46,000	3
Public and Institutional	—	86,000 <sup>3</sup>	18
Public Park	—	—	53
Water Management/Habitat/ Recreation (existing)	—	—	706
<b>Total</b>	<b>1,300</b>	<b>1,636,000<sup>4</sup></b>	<b>1,110</b>

Notes:

All acreages are rounded to the nearest whole number.

The potential elementary school that could be located in the Public Park area is not included in total square footage but has been considered programmatically.

<sup>1</sup> The retail square footage is inclusive of 61,000 square feet of building space on 5 gross acres located in the Retail Overlay on the Campus Office land use north of Lake I. The 61,000 square feet of building space on 5 gross acres would be dedicated to either retail or campus office, but not both. To provide for a conservative analysis, this EIR assumes the square footage and acreage would be dedicated to retail because it would have a greater land use intensity.

<sup>2</sup> Square footage for the Industrial land use type is inclusive of the 53,500 square feet of existing building space at the Pleasanton Transfer Station and Recycling Center, which would eventually be relocated within the Plan Area.

<sup>3</sup> The Public and Institutional land use type consists of the existing City of Pleasanton Operations Service Center site and the approximately 86,000 square feet of existing building space. The Operations Service Center would remain in its current location.

<sup>4</sup> The total square footage is not inclusive of the 86,000 square feet of existing building space at the City of Pleasanton Operations Service Center Site, because it would remain in its current location and would not be altered as a result of Specific Plan buildout.

Source: Gates and Associates, 2014.

## Residential

Residential areas are planned in the southwestern quadrant of the Plan Area. A total of 1,300 single-family housing units would be provided in varying densities. Two higher-density, single-family residential areas are centrally located. Table ES-2 summarizes the proposed residential land use types. Private open space would be located throughout the residential areas in the form of landscaped buffers along roadways and trails, open space corridors, detention basins, neighborhood parks, and pocket parks.

**Table ES-2: Residential Uses Development Summary**

Residential Density	Units	Gross Acres <sup>1</sup>
<5 du/acre	558	132
5.1-8 du/acre	456	57
8.1-11 du/acre	286	26
Total Housing	1,300 units	215
Notes: du = dwelling units <sup>1</sup> The gross acreage includes roadways and private open space. Source: Gates and Associates, 2014.		

**Low Density Residential – 5.0 Dwelling Units per Acre and Under**

The Residential (5 du/ac and under) land use area permits lots of 6,500 square feet to greater than one acre, and accommodates one- and two-story detached single-family homes. Vehicular access would be provided by public streets. This is the lowest residential density and is planned adjacent to existing outlying residential neighborhoods to minimize impacts on residents.

**Medium Density Residential – 5.1 to 8.0 Dwelling Units per Acre**

The Residential (5.1 to 8.0 du/ac) land use area permits lots of 3,500 square feet to less than 6,500 square feet, and accommodates two- and three-story detached single-family homes. Vehicular access would be provided by private drives and fronting or rear access alleys. Common visitor parking and open space/recreation amenities such as play areas, tot lots, swimming pools, trails, etc. would be required.

**Compact Residential – 8.1 to 11.0 Dwelling Units per Acre**

The Residential (8.1 to 11.0 du/ac) land use area permits lots of 2,000 square feet to less than 3,500 square feet, and accommodates two- and three-story detached and attached single-family homes. Vehicular access would be provided by private drives and fronting or rear access alleys. Paseos that provide front access entries would be typical. Common visitor parking and open space/recreation amenities would be required.

**Retail**

Retail uses are planned within the general area at the northwest and southwest corner of Busch Road and El Charro Road. A Retail Overlay would also allow retail uses north of Lake I, on the 5-acre parcel designated for Campus Office. The 5-acre parcel could be developed for either retail or campus office, but not both. To provide a conservative analysis, this EIR assumes development of retail uses because it would have a greater land use intensity.

## **Campus office**

Two areas—one north of Lake I and one south of Lake I—would allow for Campus Office development. The purpose of the Campus Office designation is to allow for either a large-scale office park for a single entity or a variety of separate office type uses within a campus-like setting.

## **Industrial**

The southeast portion of the Plan Area would allow for business parks, research and development, industrial and distribution uses, as well as the possible future relocation of the Pleasanton Transfer Station and Recycling Center.

## **Destination Use**

A 3-acre parcel located between Lake I, Lake H, and Cope Lake would be designated as Destination Use, allowing a variety of unique uses such as a restaurant, winery, or conference facility.

## **Public and Institutional**

The City of Pleasanton Operations Service Center would remain in its present location.

## **Public Parks**

The Base Plan includes a series of park and open space areas:

- An open space community park is planned east of El Charro Road, with potential opportunities for additional trails and vista points in the Zone 7 lands adjacent to Cope Lake.
- An active recreation park is planned along the south side of Lake I. An overlay would allow the development of an elementary school/neighborhood park as an alternate use.
- A village green is planned near the west side of the Busch Road and El Charro Road intersection.

## **Water Management/Habitat/Recreation (existing)**

Zone 7 lands surrounding the existing Lakes H and I and Cope Lake would be maintained as open space. In addition, a north/south open space spine and open space corridors connecting to the spine would be located throughout the residential areas.

## **Circulation**

Plan Area neighborhoods would be interconnected with streets, bike paths, and pedestrian trails, and with trail linkages to the outlying lakes, parks, neighborhoods, schools, and the regional trail system.

El Charro Road would be extended through the Plan Area and would connect with Stanley Boulevard at the Shadow Cliffs Regional Park driveway. Approximately 1,200 feet of Stanley Boulevard would be reconstructed to accommodate the new intersection.

The existing bridge over Arroyo Mocho would accommodate southbound traffic on El Charro, and a new bridge would be constructed for northbound traffic. The extension of El Charro Road to Stanley Boulevard would require the construction of a railroad underpass, similar to the existing underpass at Stanley Boulevard and Valley Avenue. The grade would be lowered on Stanley Boulevard by approximately 16 feet to accommodate the new railroad track undercrossing.

Busch Road is a two-lane roadway that would connect to the extended El Charro Road. Boulder Street would be extended from Valley Avenue to connect with Busch Road. These arterial and collector streets would be served by a system of local streets and alleys throughout the Plan Area. The “complete street” network would eventually comprise both Specific Plan roadways and minor roadways to be planned for each major development.

Pedestrian improvements include sidewalks and easily accessible walking trails within the park and open space areas. Bicycle paths have been included within the Specific Plan Area to encourage alternatives to motor vehicles and to connect with the City’s existing bicycle path network. The roadway system would also provide bus pull-outs and shelters. The exact location of these facilities would be identified through the development process along with coordination with Livermore Amador Valley Transit Authority (LAVTA).

## Utilities

New public water, recycled water, sanitary sewer, stormwater drainage, and other public infrastructure would extend throughout the Plan Area. Sufficient water would be provided by the City of Pleasanton by offsetting potable water use in other locations through expansion of the recycled water system. Cost sharing for the construction of all public infrastructure will be on a pro-rata share basis from all benefiting private developers.

## Offsite Utility Development

In addition to utility infrastructure constructed within the Plan boundaries, utility infrastructure construction would be required outside the Plan boundaries to provide connection and sufficient downstream capacity. Connections and expansions would occur in Stoneridge Drive, El Charro Road, Mohr Avenue, Ironwood Drive, Kamp Drive, Valley Avenue, and Stanley Boulevard.

## Project Objectives

The objectives of the Base Plan are to:

- Facilitate the logical, orderly, and planned development of the Plan Area through the use of a comprehensive planning document.
- Reflect the unique character of the Plan Area’s lake front and habitat setting in the Specific Plan design.
- Maintain and enhance the community’s quality of life.
- Promote economic growth through new capital investment, the creation of new jobs, the development of new housing opportunities, and expansion of the tax base.

- Facilitate the redevelopment of the Plan Area from an industrial and mining area to a mix of residential, retail, campus office, industrial, parks, and open space/conservation uses.
- Provide sufficient modes of circulation within the Plan Area and connectivity to surrounding land uses.
- Facilitate the use of alternative modes of transportation through an enhanced circulation system, site planning, and design techniques.
- Minimize adverse impacts to sensitive uses through the use of site planning and design techniques.
- Protect existing habitat and special-status species within the Specific Plan Area.
- Reflect the lakefront and open space character of the site.

## Significant Unavoidable Adverse Impacts

Implementation of the Base Plan would result in the following significant unavoidable impacts:

- **Clean Air Plan Consistency** – The Specific Plan would not further all the primary goals of the 2010 Clean Air Plan as a result of construction equipment and vehicle exhaust air quality impacts that would remain significant and unavoidable after the implementation of mitigation.
- **Criteria Pollutants** – Large construction projects within the Plan Area involving extensive material transport would result in significant construction equipment emissions even after the implementation of mitigation if extensive equipment and/or material transport is involved. Therefore, impacts would remain significant and unavoidable.
- **Traffic Noise Increase** – Project-related traffic would result in permanent increases in ambient noise levels for which no feasible mitigation is available. Noise level increases would not exceed allowable community noise standards but would increase roadway noise by over 4dBA in several locations, which is considered a significant impact by the Pleasanton General Plan. Therefore, impacts would be significant and unavoidable.
- **Public Transit** – Development and land use activities contemplated by the Specific Plan would result in short-term (next 10 years) significant unavoidable transit station parking impacts for which no feasible mitigation is available.

## Summary of Project Alternatives

The City of Pleasanton is considering a total of eight alternative plans for the Plan Area in addition to the Base Plan. With the exception of the No Project Alternative, all “build” alternatives include an open space buffer around Zone 7 facilities and an open space strip along Stanley Boulevard and Valley Avenue.

The main differences between alternatives relate to the number of residential units; the location and mix of single-family unit types; the amount of industrial development; extent of the El Charro Road extension; provision of City parks and open space; and potential relocation of Pleasanton Transfer Station and Recycling Center.

Table ES-3 through Table ES-4 provide a summary and comparisons of the Base Plan and the project alternatives.

**Table ES-3: Specific Plan Alternatives Summary**

Alternative	Residential <sup>1</sup>	Non-residential				Maximum Buildout Potential (Square Feet)	Reduction Compared with Base Plan
		Retail	Office	Industrial	Destination Use	Total	
Base Plan (Proposed Project)	4,873,000 (1,300 units)	91,000	442,000	1,057,000	46,000	6,509,000	0
No Project/No Build	0 (0 units)	—	—	—	—	0	—6,509,000
No Project	624,000 (206 units)	—	—	1,741,766	—	2,365,766	—4,143,234
Alternative 1	3,974,000 (1,430 units)	91,000	442,000	1,057,000	46,000	5,610,000	—899,000
Alternative 2	4,116,000 (1,000 Units)	91,000	442,000	1,057,000	46,000	5,752,000	—757,000
Alternative 3	4,000,000 (800 Units)	91,000	442,000	1,057,000	46,000	5,636,000	—873,000
Alternative 4 (partial El Charro)	2,500,000 (500 units)	65,000	313,000	100,000	—	2,978,000	—3,531,000
Alternative 5 (without El Charro)	2,500,000 (500 units)	65,000	313,000	100,000	—	2,978,000	—3,531,000
Alternative 6: Park	0	—	—	100,000	—	100,000	—6,409,000

Note:  
<sup>1</sup> Residential square footage based on based on the East Pleasanton Infrastructure Feasibility Calculations, Economic & Planning Systems, Inc., 2013.  
 Source: City of Pleasanton, 2014.

**Table ES-4: Disposition of Other Key Alternative Components**

Alternative		Disposition of Key Components		
		El Charro Road/Stanley Boulevard Intersection	Relocate Pleasanton Transfer Station? (to SE corner of Plan Area)	Provision of City Open Space
Base Plan (Proposed Project)		At Shadow Cliff Recreation Area	<b>YES</b>	No
No Project/No Build		No connection	No	No
No Project	City	No Connection	No	No
	County	No Connection	No	No
Alternative 1		At Shadow Cliff Recreation Area	<b>YES</b>	No
Alternative 2		At Shadow Cliff Recreation Area	<b>YES</b>	No
Alternative 3		At Shadow Cliff Recreation Area	<b>YES</b>	No
Alternative 4		Extension of El Charro Road north, but no connection to Stanley Boulevard	<b>YES</b>	<b>YES</b>
Alternative 5		No extension of El Charro Road north, no connection to Stanley Boulevard (Emergency vehicle access only)	<b>YES</b>	<b>YES</b>
Alternative 6		No extension of El Charro Road north, no connection to Stanley Boulevard (Emergency vehicle access only)	No	<b>YES (with Wildlife Habitat Banking)</b>
Source: City of Pleasanton, 2014; Gates and Associates, 2014.				

## Areas of Controversy

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A Notice of Preparation (NOP) for the proposed project was issued on October 24, 2013. The NOP described the proposed project (then referred to as the Preferred Plan) and issues to be addressed in the EIR and was distributed to the State Clearinghouse, responsible agencies, and other interested parties for an extended public review period ending December 10, 2013. The NOP identified the potential for significant impacts on the environment related to the following topical areas:



- Aesthetics, Light, and Glare
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Mineral Resources
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utility and Service Systems

## Disagreement Among Experts

This Draft EIR contains substantial evidence to support all the conclusions presented herein. It is possible that there will be disagreement among various parties regarding these conclusions.

Both the CEQA Guidelines and case law provide standards for treating disagreement among experts. Where evidence and opinions conflict on an issue concerning the environment, and the lead agency knows of these controversies in advance, the EIR must acknowledge the controversies, summarize the conflicting opinions of the experts, and include sufficient information to allow the public and decision makers to make an informed judgment about the environmental consequences of the proposed project.

## Potentially Controversial Issues

Below is a list of potentially controversial issues that may be raised during the public review and hearing process of this Draft EIR:

- Aesthetics, Light, and Glare
- Air Quality
- Biological Resources
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Construction and Operational Noise
- Population and Housing
- Public Services
- Traffic Congestion

It is also possible that evidence will be presented during the 45-day, statutory Draft EIR public review period that may create disagreement. Decision makers would consider this evidence during the public hearing process.

In rendering a decision on a project where there is disagreement among experts, the decision makers are not obligated to select the most environmentally preferable viewpoint. Decision makers need not resolve a dispute among experts. In their proceedings, decision makers must consider comments received concerning the adequacy of the Draft EIR and address any objections raised in these comments. However, decision makers are not obligated to follow any directives, recommendations, or suggestions presented in comments on the Draft EIR, and can certify the Final EIR without needing to resolve disagreements among experts.

## Public Review of the Draft EIR

Upon completion of the Draft EIR, the City of Pleasanton filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR was distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the City of Pleasanton Community Development Department and the Pleasanton Public Library. The address and hours for each location are provided below:

City of Pleasanton Community Development Department 200 Old Bernal Avenue Pleasanton, CA 94566 Monday–Friday, 8:00 a.m. to 5 p.m.	Pleasanton Public Library 400 Old Bernal Avenue Pleasanton, CA 94566 Monday–Thursday, 10:00 a.m. to 9:00 p.m. Friday and Saturday, 10:00 a.m. to 5 p.m. Sunday, 1:00 p.m. to 5:00 p.m.
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The Draft EIR is also available electronically on the City of Pleasanton’s website:  
<http://www.cityofpleasantonca.gov/business/planning/advance-planning.html>.

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Ms. Shweta Bonn, Senior Planner  
City of Pleasanton  
Community Development Department  
200 Old Bernal Avenue  
Pleasanton, CA 94566  
Phone: (925) 931-5611  
Fax: (925) 931-5483  
Email: [sbonn@cityofpleasantonca.gov](mailto:sbonn@cityofpleasantonca.gov)

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the City of Pleasanton on the project, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

## Executive Summary Matrix

Table ES-5 summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the Base Plan. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding section of this EIR. Table ES-5 is included in the EIR as required by CEQA Guidelines Section 15123(b)(1).

**Table ES-5: Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<b>Section 3.1 – Aesthetics, Light, and Glare</b>		
<b>Impact AES-1:</b> Development and land use activities contemplated by the Specific Plan would not have a substantial adverse effect on a scenic vista.	No mitigation is necessary.	Less than significant impact.
<b>Impact AES-2:</b> Development and land use activities contemplated by the Specific Plan would not degrade the visual character of the Plan Area or its surroundings.	No mitigation is necessary.	Less than significant impact.
<b>Impact AES-3:</b> Development and land use activities contemplated by the Specific Plan would not create new sources of light and glare that may adversely affect views.	No mitigation is necessary.	Less than significant impact.
<b>Section 3.2 – Air Quality</b>		
<b>Impact AIR-1:</b> Development and land use activities contemplated by the Specific Plan would conflict with or obstruct implementation of the 2010 Clean Air Plan.	Implement Mitigation Measure AIR-2, AIR-3, AIR-4a, and AIR-4b.	Significant and unavoidable impact.
<b>Impact AIR-2:</b> Development and land use activities contemplated by the Specific Plan would violate an air quality standard or contribute substantially to an existing or projected air quality violation.	<p><b>MM AIR-2:</b> To reduce fugitive dust (PM10) emissions from construction activity, the following measures shall be implemented:</p> <ul style="list-style-type: none"> <li>• Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.</li> <li>• Cover all hauling trucks or maintain at least two feet of freeboard.</li> <li>• Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.</li> <li>• Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.</li> <li>• Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).</li> <li>• Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.</li> <li>• Limit traffic speeds on any unpaved roads to 15 miles per hour.</li> </ul>	Less than significant impact.

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> <li>• Replant vegetation in disturbed areas as quickly as possible.</li> <li>• Suspend construction activities that cause visible dust plumes to extend beyond the construction site.</li> <li>• Post a publicly visible sign(s) with the telephone number and name of the 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.</li> </ul>	
<p><b>Impact AIR-3:</b> Development and land use activities contemplated by the Specific Plan would result in a cumulatively considerable net increase of criteria pollutants for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).</p>	<p><b>MM AIR-3:</b> To reduce exhaust emissions from off-road construction equipment, the following measures shall be implemented:</p> <ul style="list-style-type: none"> <li>• The developer or contractor shall provide a plan for approval by the City or Bay Area Air Quality Management District (BAAQMD) demonstrating that heavy-duty off-road vehicles to be used in the construction project, including owned, leased, and/or subcontractor vehicles, shall meet or exceed United States Environmental Protection Agency Tier 3 off-road emissions standards when more than five pieces of off-road diesel equipment with a horsepower greater than 70 per piece of equipment would operate on one day.</li> <li>• Clear signage at all construction sites will be posted indicating that diesel equipment standing idle for more than 5 minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite or adjacent to the construction site.</li> <li>• The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).</li> <li>• Properly tune and maintain equipment for low emissions.</li> </ul>	<p>Significant and unavoidable impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact AIR-4:</b> Development and land use activities contemplated by the Specific Plan may expose sensitive receptors to substantial pollutant concentrations.</p>	<p><b>MM AIR-4a:</b> Prior to issuance of building permits for any sensitive receptor use (residential areas, elementary school, daycare centers, etc.) that would be developed pursuant to the Specific Plan, the applicant shall complete either of the following two options:</p> <ol style="list-style-type: none"> <li>1. Prepare and submit a toxic air contaminant risk screening assessment to the City of Pleasanton that demonstrates the potential risk from roadways, rail, and stationary sources would not exceed the Bay Area Air Quality Management District’s (BAAQMD’s) cumulative risk threshold for toxic air contaminant impacts;</li> <li style="text-align: center;">or</li> <li>2. Prepare and submit a Health Risk Analysis to the City of Pleasanton, consistent with BAAQMD’s recommended methodology, that demonstrates the potential risk from roadways, rail, and stationary sources would not exceed the BAAQMD’s cumulative risk threshold for toxic air contaminant impacts. If mitigation is required to reduce a potentially significant risk to less than the cumulative risk threshold, that mitigation shall be clearly identified and the associated risk reduction quantified. The mitigation must be incorporated into the project and implemented.</li> </ol> <p><b>MM AIR-4b:</b> Prior to issuance of building permits for any potential source of toxic air contaminants that would be developed pursuant to the Specific Plan, the applicant shall complete either of the following two options:</p> <ol style="list-style-type: none"> <li>1. Prepare and submit a toxic air contaminant risk screening assessment to the City of Pleasanton that demonstrates the proposed development would not expose sensitive receptors to levels of risk that exceed the BAAQMD’s project level and cumulative risk threshold for toxic air contaminant impacts.</li> <li>2. Prepare and submit a Health Risk Analysis to the City of Pleasanton consistent with BAAQMD’s recommended methodology, which demonstrates the proposed development would not expose sensitive receptors to levels of risk that would exceed the BAAQMD’s project level and cumulative risk threshold for toxic air contaminant impacts. If mitigation is required to reduce a potentially significant risk to less than</li> </ol>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	the cumulative risk threshold, that mitigation shall be clearly identified and the associated risk reduction quantified. The mitigation must be incorporated into the project and implemented.	
<p><b>Impact AIR-5:</b> Development and land use activities contemplated by the Specific Plan would not create objectionable odors affecting a substantial number of people.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Section 3.3 – Biological Resources</b></p>		
<p><b>Impact BIO-1:</b> Development and land use activities contemplated by the Specific Plan may result in direct mortality or the loss of habitat for special-status plant species including plant species identified by the California Native Plant Society with a rating of List 1A or 1B (i.e., rare, threatened or endangered plants).</p>	<p><b>MM BIO-1a:</b> Conduct focused plant surveys for the following special-status plant: heartscale, brittlescale, San Joaquin spearscale, lesser saltscale, Congdon’s tarplant, and palmate-bracted bird’s beak. Prior to ground clearing or vegetation removal within Plan Area parcels containing non-native annual grassland habitat (as shown on Exhibit 3.3 1 and Table 3.3 4), focused surveys shall be conducted in suitable habitat (non-native grassland) to determine the presence of special-status plant species with the potential to occur as identified in Table 3.3 4. Surveys shall be conducted in accordance with California Department of Fish and Game (CDFG) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2011). These guidelines require rare plant surveys to be conducted at the proper time of year when rare or endangered species are both “evident” and identifiable. Field surveys shall be scheduled to coincide with known flowering periods, and/or during periods of physiological development that are necessary to identify the plant species of concern.</p> <p><b>MM BIO-1b:</b> Agency Coordination. If any of the species are found onsite and cannot be avoided, the applicant shall consult with the U.S. Fish and Wildlife Service (USFWS) and/or CDFW, as applicable, to determine appropriate avoidance and mitigation for special-status plants.</p> <p><b>MM BIO-1c:</b> Avoid or minimize impacts on special-status plant species populations. The project applicant shall implement the following measures to avoid or minimize impacts on special-status plant species.</p> <ol style="list-style-type: none"> <li>1. The project will be redesigned or modified to avoid direct and indirect</li> </ol>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>impacts on special-status plant species, if feasible.</p> <p>2. Special-status plant species near the project site will be protected during construction by installing environmentally sensitive area fencing (orange construction barrier fencing) around special-status plant species populations. The environmentally sensitive area fencing shall be installed at least 20 feet from the edge of the population where feasible. Where special-status plant populations are located in wetlands, silt fencing shall also be installed. The location of the fencing shall be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications shall contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within the fenced environmentally sensitive area.</p> <p>3. The project proponent will coordinate with the appropriate resource agencies and local experts to determine whether transplantation of special-status plant species is feasible. If the agencies concur that it is a feasible mitigation measure, the botanist shall develop and implement a transplantation plan in coordination with the appropriate agencies. The transplantation plan shall involve identifying a suitable transplant site, moving the plant material and seed bank to the transplant site, collecting seed material and propagating it in a nursery, and monitoring the transplant sites to document recruitment and survival rates.</p>	
<p><b>Impact BIO-2:</b> Development and land use activities contemplated by the Specific Plan may have a substantial adverse effect, either directly or through habitat modifications, on California red-legged frog.</p>	<p><b>MM BIO-2a:</b> Conduct preconstruction surveys for California-red-legged frog. To avoid and minimize impact to the California-red-legged frog, prior to construction activities within the Arroyo Mocho channel and within all vegetation communities within 500 feet of the Arroyo Mocho channel (Exhibit 3.3 1 and Table 3.3 4), a qualified biologist shall be retained by the project applicant to conduct pre-construction clearance surveys for the California-red-legged frog no more than 48 hours before construction activities begin. If California-red-legged frogs are determined to be absent from the survey area, then no further mitigation would be necessary. If California-red-legged frogs are encountered during any construction activities, construction shall cease and the USFWS shall be notified immediately. Before construction activities can restart, the California-red-</p>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>legged frog shall be relocated by a USFWS-approved biologist to nearby suitable aquatic habitat.</p> <p><b>MM BIO-2b:</b> <i>Implement ground disturbance restrictions associated with construction near the Arroyo Mocho.</i> To minimize disturbance to dispersing or foraging California-red-legged frog, all construction activities within 100 feet of Arroyo Mocho aquatic habitats shall be conducted during the dry season, between May 2 and October 15, or before the onset of the rainy season, whichever occurs first. Construction that commences in the dry season may continue in the rainy season if exclusion fencing is placed between the construction area and Arroyo Mocho to keep frogs from entering the construction area.</p> <p><b>MM BIO-2c:</b> Conduct construction monitoring for California-red-legged frog. If preconstruction surveys identify California-red-legged frog in the Arroyo Mocho channel or anywhere within the Plan Area, the project applicant shall retain a qualified biologist to monitor for the presence of California-red-legged frog in the active construction area within suitable aquatic and upland habitat. If individual California-red-legged frog could be directly affected by the project construction, then these activities shall cease and the USFWS shall be notified immediately. Formal consultation may then be required by the USFWS, and mitigation measures will be developed through the consultation process to reduce impacts to the species. The project applicant shall implement mitigation measures that are recommended by the USFWS through the consultation process to reduce impacts to this species.</p> <p><b>MM BIO-2d:</b> Conduct Environmental Training. The project applicant shall conduct Worker Environmental Awareness Program (WEAP) training for all contractors and construction crews before construction activities within non-native annual grassland, riparian woodland, or perennial stream habitat begin (Exhibit 3.3 1 and Table 3.3 4). The WEAP shall include a brief review of the special-status species and other sensitive resources that could occur in the construction area (including their life history and habitat requirements) and their legal status and protection.</p>	



**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact BIO-3:</b> Development and land use activities contemplated by the Specific Plan may have a substantial adverse effect, either directly or through habitat modifications, on California tiger salamander.</p>	<p><b>MM BIO-3a:</b> Conduct preconstruction surveys for California tiger salamander and comply with U.S. Fish and Wildlife Service (USFWS) mitigation measures. Prior to construction activities, the project applicant shall complete surveys for California tiger salamander within non-native annual grassland, riparian woodland, or perennial stream habitat (Arroyo Mocho [Exhibit 3.3 1 and Table 3.3 4]) and shall provide results of the survey to USFWS. If no California tiger salamander are found, then no mitigation would be necessary. However, if California tiger salamander are determined to occur within the Plan Area, then consultation with the USFWS will be required. If consultation is required, the USFWS requires the preparation of a Biological Assessment that evaluates the effects of the proposed project on listed and proposed threatened and endangered species. Through the process, appropriate mitigation measures shall be developed to reduce impacts to California tiger salamanders. Mitigation measures may include (not limited to) preservation, creation and/or enhancement of offsite habitat for the species.</p> <p><b>MM BIO-3b:</b> Provide construction monitoring for California tiger salamander within non-native annual grassland, riparian woodland, or perennial stream habitat (Arroyo Mocho) (Exhibit 3.3 1 and Table 3.3 4). If surveys identify California tiger salamander within the Plan Area, each project applicant shall retain a qualified biologist to monitor the presence of California tiger salamander in the active construction area. If individual California tiger salamanders could be directly affected by project construction, then these activities shall cease and the USFWS shall be notified immediately. Mitigation measures will be developed through the consultation process to reduce impacts to the species.</p>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact BIO-4:</b> Development and land use activities contemplated by the Specific Plan may result in direct and indirect loss of habitat and individuals of animal and plant species of concern and other non-listed special-status species.</p>	<p><b>MM BIO-4a:</b> Prior to the issuance of demolition, grading, or building permits within or within a 100-foot buffer of riparian woodland (south of Lake H and north of Lake H along Arroyo Mocho), or perennial stream habitat (El Charro Road crossing of Arroyo Mocho) within the Specific Plan boundaries (Exhibit 3.3 1 and Table 3.3 4), a site specific focused survey for western pond turtle shall be conducted within the construction area (project footprint and staging areas) and the 100-foot buffer by a qualified biologist 30 days prior to the onset of construction activities to determine presence or absence of this species. If juvenile or adult turtles are found within the proposed construction area, the individuals shall be moved out of the construction site under consultation with the California Department of Fish and Wildlife (CDFW). If a nest is found within a 100-foot radius of the construction area, construction shall not take place within 100 feet (30 meters) of the nest until the turtles have hatched, or the eggs have been moved to an appropriate location under consultation with the CDFW.</p> <p>Unless otherwise approved by the CDFW, construction shall be avoided when adults and hatchlings are overwintering (October to February), due to the likelihood of turtle adults and juveniles being present in upland habitats. If construction activities must occur during this period, a survey for overwintering locations shall be conducted within two weeks prior to construction. If this species is found overwintering within the expansion area (construction area and the 100-foot buffer radius), den locations shall be avoided until the area is unoccupied, as determined by a qualified biologist.</p> <p>If pond turtles are found in the Plan Area, locations of these occurrences shall be mapped. A detailed mitigation/conservation plan that includes long-term strategies for the conservation of the species shall be developed in consultation with CDFW upon confirming the presence of this species in the Plan Area. Measures may include trapping and relocation of pond turtles and/or purchase of mitigation credits. If this species is not found in the plan area, no further mitigation is necessary.</p>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p><b>MM BIO-4b:</b> For each parcel identified in Table 3.3 4 as having suitable habitat (non-native grassland) for burrowing owls within the Plan Area, within 30 days prior to the onset of construction activities outside of the breeding season (September to January), a qualified biologist shall conduct a protocol-level burrowing owl survey as outlined in the Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium 1993 and CDFG 2012) to determine if burrowing owls are present. If burrowing owls are observed on the site, measures such as flagging the burrow and avoiding disturbance shall be implemented. In addition, suitable offsite habitat shall be preserved, and passive or active relocation to move owls from the site shall be implemented to ensure that no owls or active burrows are inadvertently buried during construction. All measures shall be determined by a qualified biologist and approved by the CDFW.</p> <p>All burrowing owl surveys shall be conducted according to CDFW protocol. The protocol requires, at a minimum, four field surveys of the entire construction area (project footprint and staging areas) and areas within 500 feet of the construction area that contain suitable habitat (non-native grassland) by walking transects close enough that the entire site is visible. The survey shall be at least 3 hours in length, either from 1 hour before sunrise to 2 hours after or 2 hours before sunset to 1 hour after. Surveys shall not be conducted during inclement weather, when burrowing owls are typically less active and visible.</p> <p>If burrowing owls are detected, the following actions may be implemented:</p> <ul style="list-style-type: none"> <li>• If nesting burrowing owls are found to occur within the construction area or the 500-foot radius, no disturbance shall occur within 250 feet of occupied burrows during the non-breeding season (September 1 to January 31) or within 246 feet during the breeding season (February 1 to August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) the birds have not begun egg-laying and incubation or (2) juveniles from the occupied burrows</li> </ul>	

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>are foraging independently and are capable of independent living. Avoidance requires that a minimum of 6.5 acres of foraging habitat be preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired birds. If avoidance is not an option and foraging and burrowing habitat will be lost, a minimum of 6.5 acres of foraging habitat (i.e., a 330-foot radius from burrow) per pair or unpaired resident bird shall be replaced offsite. These protected replacement lands will be adjacent to occupied burrowing owl habitat and at a location acceptable to CDFW. If destruction of occupied burrows is unavoidable, passive relocation shall be implemented during the non-breeding season as specified in the Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium 1993 and CDFG 2012).</p> <p><b>MM BIO-4c:</b> Prior to the issuance of demolition, grading, or building permits within riparian woodland (south of Lake H and north of Lake H along Arroyo Mocho) and developed habitats (buildings and other structural features) within the Specific Plan boundaries (Exhibit 3.3 1 and Table 3.3 4), a site-specific, pre-construction bat survey shall be performed by a wildlife biologist or other qualified professional within the riparian woodland and developed habitats. If bat roosts are identified onsite, the City shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to maternity roosting season (typically May to August) of each construction phase prior to the onset of construction activities. If maternity roosts are identified during the maternity roosting season (typically May to August), they must remain undisturbed until a qualified biologist has determined the young bats are no longer roosting. Replacement roost habitat (e.g., bat boxes) may be required onsite for roosting sites removed; type, quantity, and placement of bat boxes shall be determined during coordination with CDFW.</p>	

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact BIO-5:</b> Development and land use activities contemplated by the Specific Plan may result in take of raptor and other birds protected by the Migratory Bird Treaty Act.</p>	<p><b>MM BIO-5:</b> All project applicants within the Plan Area shall be required to implement the following in all habitat types:</p> <ol style="list-style-type: none"> <li>1. Schedule construction activities to avoid nesting activities. The avian breeding window, on average, is between February 1 and August 31, which complies with the Migratory Bird Treaty Act. Construction activities should occur between September 1 and January 30.</li> <li>2. If project activities cannot avoid the breeding bird season (generally February 1 through August 31), a focused survey for raptors and migratory bird nests shall be conducted within 30 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests onsite. Surveys shall continue weekly in a 500-foot area (for listed special-status species), a 100-foot area (for raptors and other non-listed special-status species), and a 50-foot area (for non-listed migratory birds) surrounding the construction zone to confirm the presence of nesting birds during construction activities. The qualified biologist shall survey for nesting birds adjacent to the construction site to determine whether the activities taking place have the potential to disturb or otherwise harm the nesting birds. Surveys will focus on species protected by state or federal laws in all areas that may provide suitable nesting habitat. For activities that occur outside the breeding bird season (generally September 1 through January 30), such surveys would not be required.</li> <li>3. If active nests or nurseries are found, the area with nesting birds will not be disturbed until abandoned by the bird (normally after September 1). Trees containing nests that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to late January). If an active nest is located within the 500-foot area, a buffer zone shall be established by the biologist and confirmed by the appropriate resource agency. Construction will not resume within the buffer until the nest is vacated and juveniles have fledged, and there is no evidence of a second attempt at nesting, as determined by a qualified biologist. The perimeter of the protected area shall be indicated by bright orange temporary fencing. No construction activities or personnel shall enter the protected area,</li> </ol>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>except with approval of a qualified biologist. Reference to this requirement and the MBTA shall be included in the construction specifications. If no active nests are found during the focused survey, no further mitigation will be required, but weekly surveys shall continue to ensure no nests become active after construction.</p> <p>4. Conduct all vegetation clearing (including shrubs and bushes) outside of the bird breeding season (September 1 through January 30). If clearing of any vegetation must take place during the breeding season, a qualified biologist must survey the vegetation to be removed for nesting migratory birds. If a nest is found, a buffer zone shall be established by the biologist and confirmed by the appropriate resource agency. In addition, no trees with cavities potentially used for cavity-nesting birds shall be removed during the bird breeding season to avoid disturbance or mortality. Reference to this requirement and the MBTA shall be included in the construction specifications.</p>	
<p><b>Impact BIO-6:</b> Development and land use activities contemplated by the Specific Plan may result in substantial adverse impacts to, and the potential loss of, jurisdictional waters of the U.S.</p>	<p><b>MM BIO-6a:</b> A wetland delineation shall be completed for each project with the potential to affect jurisdictional features within open water, tamarisk scrub, riparian scrub, or riparian woodland as indicated on Exhibit 3.3 1 and Table 3.3 4. Pending verification by the USACE of a Wetland Delineation and as part of each subsequent project application submittal to the City, the project applicant shall identify all potential wetland resources that occur onsite for City review. If wetland resources are proposed to be impacted, the project applicant shall do the following:</p> <ol style="list-style-type: none"> <li>1. If required, apply for a Section 404 permit from the United States Army Corps of Engineers (USACE) after verification of the wetland delineation by 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. Onsite creation of wetland habitat is preferred to offsite mitigation. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to the USACE.</li> <li>2. Obtain a Section 401 water quality certification from the RWQCB.</li> <li>3. A mitigation plan shall be implemented that includes one or both of the following:</li> </ol>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>(a) Completion of an onsite Mitigation and Monitoring Plan that includes onsite restoration/creation/preservation of the wetlands.</p> <p>(b) Obtain credits at an approved mitigation bank.</p> <p><b>MM BIO-6b:</b> A Streambed Alteration Agreement for removal of or disturbance to riparian habitat and Waters of the U.S. (e.g., stream, lake, or river) (Table 3.3 4) from the California Department of Fish and Wildlife (CDFW) would also be required for the projects that will affect features under the jurisdiction of CDFW. This agreement would include measures to minimize and restore riparian habitat. The 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 onsite preservation is not possible, offsite habitat compensation standards shall consist of a 2:1 impact preservation ratio (2 acres of offsite preserved habitat for every onsite acre impacted).</p> <p><b>MM BIO-6c:</b> The best available technology in Best Management Practices (BMPs) shall be employed on all construction sites within the Plan Area during construction to reduce sedimentation, erosion, water pollution, and dust to the greatest extent practicable. A Grading and Erosion Control Plan shall be prepared by the applicant or applicant’s contractor and submitted to the City of Pleasanton Public Works and City of Pleasanton Planning Division for approval prior to the start of project construction, including clearing and grubbing. In areas where wetlands are within 250 feet of the project footprint, erosion control measures and construction fencing shall be emplaced, monitored for effectiveness, and maintained throughout the construction operations around all wetlands.</p>	
<p><b>Impact BIO-7:</b> Development and land use activities contemplated by the Specific Plan may result in disturbance, degradation, and removal of riparian habitat.</p>	<p>Implement MM BIO-6a through MM BIO-6d.</p>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact BIO-8:</b> Development and land use activities contemplated by the Specific Plan may conflict with local biological policies or ordinances.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact BIO-9:</b> Development and land use activities contemplated by the Specific Plan could interfere substantially with the movement of native resident or migratory fish or wildlife species.</p>	<p><b>MM BIO-9a:</b> Minimize lighting spillover. All outdoor lighting shall be equipped with devices that will direct lighting away from the Arroyo Mocho and outdoor lighting within 200 feet of the centerline of the arroyo shall be of the minimum wattage required for that particular use and shall be shielded and directed away from the corridor to the specific location intended for illumination (e.g. roads, walkways, or recreation fields) to prevent stray light spillover onto sensitive habitat.</p> <p><b>MM BIO-9b:</b> Incorporate wildlife habitat into landscaping plans and community and neighborhood parks. Landscape plans for the community and neighborhood parks which are adjacent to Open Space shall consider wildlife by providing cover, food, and water for wildlife where feasible.</p>	<p>Less than significant impact.</p>
<p><b>Section 3.4 – Cultural Resources</b></p>		
<p><b>Impact CUL-1:</b> Subsurface construction activities associated with development and land use activities contemplated by the Specific Plan may damage or destroy previously undiscovered historic resources.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact CUL-2:</b> Subsurface construction activities associated with the development and land use activities contemplated by the Specific Plan may damage or destroy previously undiscovered archaeological resources.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact CUL-3:</b> Subsurface construction activities associated with the development and land use activities contemplated by the Specific Plan may damage or destroy previously undiscovered paleontological resources.</p>	<p><b>MM CUL-3:</b> In the event a fossil is discovered during subsurface excavation activities for any Specific Plan development, 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 City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the City to</p>	<p>Less than significant impact.</p>



**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>determine procedures to be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards. The plan shall be submitted to City for review and approval. Upon approval, the plan shall be incorporated into the project.</p>	
<p><b>Impact CUL-4:</b> Subsurface construction activities associated with the development and land use activities contemplated by the Specific Plan may damage or destroy previously undiscovered human remains.</p>	<p><b>MM CUL-4:</b> If previously unknown human remains are encountered during construction activities for any Specific Plan development, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Sections 5097.94 and 5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Where any of 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:</li> </ol>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> <li>- 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.</li> <li>- The descendant identified fails to make a recommendation.</li> <li>- 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.</li> </ul>	
<b>Section 3.5 – Geology, Soils, and Seismicity:</b>		
<b>Impact GEO-1:</b> Development and land use activities contemplated by the Specific Plan may expose persons or structures to seismic hazards.	No mitigation is necessary.	Less than significant impact.
<b>Impact GEO-2:</b> Development and land use activities contemplated by the Specific Plan may result in soil erosion or the loss of topsoil.	No mitigation is necessary.	Less than significant impact.
<b>Impact GEO-3:</b> Development and land use activities contemplated by the Specific Plan may expose persons or property to hazards associated with unstable geologic units or soils.	No mitigation is necessary.	Less than significant impact.
<b>Impact GEO-4:</b> Development and land use activities contemplated by the Specific Plan may expose persons or structures to hazards associated with expansive soils.	No mitigation is necessary.	Less than significant impact.
<b>Section 3.6 – Greenhouse Gas Emissions</b>		
<b>Impact GHG-1:</b> Development and land use activities contemplated by the Specific Plan would generate direct and indirect GHG emissions; however, these emissions would not result in a significant impact on the environment.	No mitigation is necessary.	Less than significant impact.

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact GHG-2:</b> Development and land use activities contemplated by the Specific Plan would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHGs.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Section 3.7 – Hazards and Hazardous Materials</b></p>		
<p><b>Impact HAZ-1:</b> Development and land use activities contemplated by the Specific Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact HAZ-2:</b> Development and land use activities contemplated by the Specific Plan would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact HAZ-3:</b> Development and land use activities contemplated by the Specific Plan may be exposed to undue risk as a result of prior contamination from past or present uses.</p>	<p><b>MM HAZ-3a:</b> Prior to the approval of each project within the Specific Plan boundaries, the project applicant shall prepare and submit to the City of Pleasanton a site-specific Phase I Environmental Site Assessment to assess the presence of hazards or hazardous materials. Recommendations from the site assessment shall be incorporated into development plans and implemented to the satisfaction of the City of Pleasanton to ensure future land users are not adversely affected by any identified onsite hazards.</p> <p><b>MM HAZ-3b:</b> Prior to demolition of any structure located within the Plan Area, the project applicant shall retain a certified hazardous waste contractor to determine the presence or absence of building materials or equipment that contain hazardous waste, including asbestos, lead-based paint, mercury, PCBs and CFCs. If such substances are found to be present, the contractor shall properly remove and dispose of these hazardous materials in accordance with federal and state law. All removal activities shall be completed prior to commencement of demolition activities. The property owner or applicant shall submit documentation to the City of</p>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	Pleasanton demonstrating that this contractor has been retained as part of the demolition permit application. Upon completion of removal and disposal, the project applicant shall provide documentation to the City of Pleasanton demonstrating that these activities were successfully completed.	
<b>Impact HAZ-4:</b> Development and land use activities contemplated by the Specific Plan would not result in an aviation safety hazard for people residing or working within the Specific Plan Area.	No mitigation is necessary.	Less than significant impact.
<b>Impact HAZ-5:</b> Development and land use activities contemplated by the Specific Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	No mitigation is necessary.	Less than significant impact.
<b>Section 3.8 – Hydrology and Water Quality</b>		
<b>Impact HYD-1:</b> Development and land use activities contemplated by the Specific Plan would not violate water quality standards or waste discharge requirements.	No mitigation is necessary.	Less than significant impact.
<b>Impact HYD-2:</b> Development and land use activities contemplated by the Specific Plan would not 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.	No mitigation is necessary.	Less than significant impact.

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact HYD-3:</b> Development and land use activities contemplated by the Specific Plan would not 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.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact HYD-4:</b> Development and land use activities contemplated by the Specific Plan would not 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.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact HYD-5:</b> Development and land use activities contemplated by the Specific Plan would not 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.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact HYD-6:</b> Development and land use activities contemplated by the Specific Plan would not otherwise substantially degrade water quality.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact HYD-7:</b> Development and land use activities contemplated by the Specific Plan would place some housing and other land uses within a 100-year flood hazard area as mapped on a federal Flood Insurance Rate Map but would raise the first floor above the base flood elevation.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact HYD-8:</b> Development and land use activities contemplated by the Specific Plan would not 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.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Section 3.9 – Land Use and Planning</b></p>		
<p><b>Impact LU-1:</b> Development and land use activities contemplated by the Specific Plan would be consistent with applicable provisions of the City of Pleasanton General Plan adopted for the purpose of avoiding or mitigating an environmental effect.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact LU-2:</b> Development and land use activities contemplated by the Specific Plan would be consistent with the applicable provisions of the Pleasanton Municipal Code adopted for the purpose of avoiding or mitigating an environmental effect.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact LU-3:</b> Development and land use activities contemplated by the Specific Plan would not conflict with any of the applicable policies established by the Alameda County Local Agency Formation Commission adopted for the purpose of avoiding or mitigating an environmental effect.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact LU-4:</b> Development and land use activities contemplated by the Specific Plan would not conflict with the policies of the Livermore Municipal Airport’s Land Use Compatibility Plan and the Livermore Municipal Airport Master Plan adopted for the purpose of avoiding or mitigating an environmental effect.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<b>Section 3.10 – Mineral Resources</b>		
<b>Impact MIN-1:</b> Development and land use activities contemplated by the Specific Plan would not result in the loss of a known mineral resource that would be of value to the region and the residents of the state.	No mitigation is necessary.	Less than significant impact.
<b>Impact MIN-2:</b> Development and land use activities contemplated by the Specific Plan would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	No mitigation is necessary.	Less than significant impact.
<b>Section 3.11 – Noise</b>		
<b>Impact NOI-1:</b> Construction activities associated with development of land use activities contemplated by the Specific Plan may expose sensitive receptors to noise levels in excess of adopted standards or cause a substantial temporary increase in ambient noise levels.	<p><b>MM NOI-1a:</b> Stationary noise-generating construction equipment shall be placed a minimum of 78 feet from the property line of the closest existing residential property line, when and where feasible.</p> <p><b>MM NOI-1b:</b> Construction contractors operating within the Plan Area or the offsite utility improvement areas shall be required to adhere to the following noise attenuation requirements:</p> <ul style="list-style-type: none"> <li>• All demolition and construction activities, inspections, plan checking, material delivery, staff assignment or coordination, etc. shall be limited to between the hours of 8:00 a.m. and 8:00 p.m., Monday through Saturday. No demolition or construction activities shall be allowed on state or federal holidays or on Sundays. The Director of Community Development may allow earlier start times or later stop times for specific construction activities, e.g., concrete pouring.</li> <li>• All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) meeting Department of Motor Vehicle noise standards that are no less effective than those originally installed by the manufacturer.</li> <li>• Prior to initial start of construction, the hours of construction shall be posted on-site.</li> </ul>	Less than significant impact.

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact NOI-2:</b> Development and land use activities contemplated by the Specific Plan would not result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact NOI-3:</b> Development and land use activities contemplated by the Specific Plan would exceed the allowable traffic noise increase threshold.</p>	<p><b>MM NOI-3:</b> For all future residential development applications within the Specific Plan boundaries, once precise grading and architectural plans are made available, and prior to building permit issuance, a final acoustical impact analysis shall be performed to confirm that exterior noise standards of 60 dBA L<sub>dn</sub> are achieved and interior noise levels are reduced to 45 dBA L<sub>dn</sub> or less.</p>	<p>Significant and unavoidable impact.</p>
<p><b>Impact NOI-4:</b> Development and land use activities contemplated by the Specific Plan may result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.</p>	<p>Implement Mitigation Measure NOI-3, together with:</p> <p><b>MM NOI-4a:</b> A noise barrier shall be constructed between the proposed residential uses located north of Stanley Boulevard and the Union Pacific Railroad (UPRR) rail line and Stanley Boulevard. The noise barrier must break the line of sight between the residential uses, UPRR rail line, and Stanley Boulevard. The height of the noise barrier shall be designed to attenuate noise levels at the adjacent residences to 60 dBA L<sub>dn</sub> or below and shall be determined as part of the acoustical impact analysis required in Mitigation Measure NOI-3.</p> <p><b>MM NOI-4b:</b> A 50-foot landscaped buffer zone shall be constructed in between the proposed residential uses along Valley Avenue north of Boulder Street and Valley Avenue.</p> <p><b>MM NOI-4c:</b> Specific development of proposed land uses shall be designed so that onsite mechanical equipment (heating, ventilation, and air conditioning units; compressors; generators; etc.) and area source operations (loading docks, parking lots, etc.) are located at the furthest distance from and/or shielded from nearby noise-sensitive land uses.</p>	<p>Less than significant impact.</p>
<p><b>Impact NOI-5:</b> Development and land use activities contemplated by the Specific Plan are located within an airport land use plan but would not expose people</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>



**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
residing or working in the project area to excessive noise levels.		
<b>Section 3.12 – Population and Housing</b>		
<b>Impact POP-1:</b> Development and land use activities contemplated by the Specific Plan would not induce substantial population growth.	No mitigation is necessary.	Less than significant impact.
<b>Section 3.13 – Public Services and Recreation</b>		
<b>Impact PSR-1:</b> Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded fire facilities or adverse impacts on fire protection.	No mitigation is necessary.	Less than significant impact.
<b>Impact PSR-2:</b> Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded police facilities that result in physical impacts on the environment.	No mitigation is necessary.	Less than significant impact.
<b>Impact PSR-3:</b> Development and land use activities contemplated by the Specific Plan may require the provision of new or physically altered school facilities the construction of which would not result in significant environmental impacts.	No mitigation is necessary.	Less than significant impact.
<b>Impact PSR-4:</b> Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded park, trail, or community facilities beyond those included in the Specific Plan.	No mitigation is necessary.	Less than significant impact.
<b>Impact PSR-5:</b> Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded library facilities or adverse impacts on related services.	No mitigation is necessary.	Less than significant impact.

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<b>Section 3.14 – Transportation/Traffic</b>		
<p><b>Impact TRANS-1:</b> Development and land use activities contemplated by the Specific Plan would increase traffic volumes and cause transportation facilities to degrade below acceptable standard levels under existing with project conditions.</p>	<p><b>MM TRANS-1:</b> Future development within the Plan Area shall pay applicable City of Pleasanton traffic impact fees to fund the installation of a traffic signal at the intersection of I-680 Northbound Ramps and Sunol Boulevard.</p>	<p>Less than significant impact.</p>
<p><b>Impact TRANS-2:</b> Development and land use activities contemplated by the Specific Plan would increase traffic volumes and cause transportation facilities to degrade below acceptable standard levels under near-term with project conditions.</p>	<p><b>MM TRANS-2:</b> Future development within the Plan Area shall pay applicable City of Pleasanton traffic impact fees to fund the installation of a traffic signal at the intersection of I-680 Southbound Ramps and Sunol Boulevard.</p>	<p>Less than significant impact.</p>
<p><b>Impact TRANS-3:</b> Development and land use activities contemplated by the Specific Plan would not increase traffic volumes that would cause transportation facilities to degrade below acceptable standard levels under cumulative with project conditions.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact TRANS-4:</b> Development and land use activities contemplated by the Specific Plan would conflict with Alameda County Transportation Commission requirements.</p>	<p><b>MM TRANS-4:</b> Future development within the Plan Area shall pay City of Pleasanton and Tri-Valley Regional traffic impact fees to fund local and regional roadway improvements to parallel corridors and impacted roadway segments to provide alternative routes and additional capacity in the region.</p>	<p>Less than significant impact.</p>
<p><b>Impact TRANS-5:</b> Development and land use activities contemplated by the Specific Plan would not increase traffic volumes that would cause onsite transportation facilities to degrade below acceptable standard levels under cumulative with project conditions.</p>	<p><b>MM TRANS-5a:</b> To minimize the cross-section of the Industrial Roadway, a second right-in/right-out roadway shall be constructed to provide two access points to the industrial area from El Charro Road. If providing two access points is not feasible, either dual right-turn lanes or a free right-turn lane with associated receiving lane on El Charro Road shall be provided. Configuration of these improvements shall be determined prior the approval of the first development in the Industrial land use portion of the Plan Area.</p> <p><b>MM TRANS-5b:</b> To ensure adequate vehicle turn movement capacity is provided from El Charro Road to Busch Road, and from Busch Road to the Retail land use designated area, all proposed development within the vicinity</p>	<p>Less than significant impact.</p>

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
	of Busch Road and El Charro Road shall prepare a queuing analysis prior to PUD approval. The queuing analysis shall determine the needed vehicle turn movement capacity for the proposed land use. If the proposed land use exceeds the planned vehicle turn movement capacity from El Charro Road to Busch Road, or from Busch Road to the Retail land use designated area, the applicant will fund and implement the vehicle turn movement capacity increases prior to issuance of building occupancy permits.	
<b>Impact TRANS-6:</b> Development and land use activities contemplated by the Specific Plan would not cause a change in air traffic patterns that results in substantial safety risks.	No mitigation is necessary.	Less than significant impact.
<b>Impact TRANS-7:</b> Development and land use activities contemplated by the Specific Plan would not result in hazardous roadway designs features or incompatible uses.	No mitigation is necessary.	Less than significant impact.
<b>Impact TRANS-8:</b> Development and land use activities contemplated by the Specific plan would not adversely affect response time for emergency service providers.	No mitigation is necessary.	Less than significant impact.
<b>Impact TRANS-9:</b> Development and land use activities contemplated by the Specific plan would not conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks).	No mitigation is feasible.	Significant unavoidable impact.
<b>Section 3.15 – Utilities and Service Systems</b>		
<b>Impact USS-1:</b> Development and land use activities contemplated by the Specific Plan would not result in a need for additional water supplies or additional treatment capacity beyond what has been planned for.	No mitigation is necessary.	Less than significant impact.

**Table ES-5 (cont.): Executive Summary Matrix**

Impacts	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact USS-2:</b> Development and land use activities contemplated by the Specific Plan would not require or result in the construction of wastewater treatment facilities or expansion of offsite existing facilities beyond what has been planned for.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact USS-3:</b> Development and land use activities contemplated by the Specific Plan would not require or result in the construction of recycled water facilities or expansion of offsite recycled facilities beyond what has been planned for.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact USS-4:</b> Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded offsite storm drainage facilities.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact USS-5:</b> Development and land use activities contemplated by the Specific Plan would not generate substantial amounts of solid waste that may result in the unnecessary use of regional landfill capacity.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>
<p><b>Impact USS-6:</b> Development and land use activities contemplated by the Specific Plan would not result in the unnecessary, wasteful, or inefficient use of energy.</p>	<p>No mitigation is necessary.</p>	<p>Less than significant impact.</p>

## SECTION 1: INTRODUCTION

### 1.1 - Overview of the CEQA Process

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of the East Pleasanton Specific Plan (State Clearinghouse No. 2013102040). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.). This Draft EIR is intended to serve as an informational document for the public agency decision makers and the public regarding the Specific Plan's Base Plan (proposed project).

The Specific Plan and this Draft EIR were prepared concurrently. This process provided the opportunity for mitigations for otherwise potentially significantly impacts to be incorporated directly into the Specific Plan. The result of this is a “mitigated plan,” or a specific plan that contains many of the environmental mitigations within its text. This approach allowed for a more interactive exchange of information between the Task Force that oversaw the preparation of the Plan and the evaluation the environmental consequences of the Plan.

#### 1.1.1 - Overview

The East Pleasanton Specific Plan area covers a 1,110-acre portion of eastern Pleasanton. The purpose of the Specific Plan is to provide guidance for the coordination of the basic land use patterns, development and design standards, circulation networks and other public infrastructure, environmental protection, financing, and implementation requirements for development of the Plan Area.

Implementation of the Specific Plan would include rezoning, pre-zoning, and eventual annexation of an unincorporated portion of the Plan Area to the City of Pleasanton. Section 2, Project Description provides a complete description of the Base Plan.

#### 1.1.2 - Purpose and Authority

This Draft EIR provides a program-level analysis of the environmental effects of the Base Plan, to the degree of specificity appropriate, in accordance with CEQA Guidelines Section 15146. This Draft EIR addresses the potentially significant adverse environmental impacts that may be associated with the planning, construction, or operation of the Base Plan. It also identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts. While the analysis is programmatic, this Draft EIR is intended to avoid the need for supplemental environmental documentation for future development projects that are consistent with the Specific Plan.

CEQA requires that an EIR contain, at a minimum, certain specific elements. These elements are contained in this Draft EIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Significant Environmental Impacts, and Mitigation Measures
- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Found not to be Significant
- Areas of Known Controversy

### 1.1.3 - Lead Agency Determination

The City of Pleasanton is designated as the lead agency for the project. CEQA Guidelines Section 15367 defines the lead agency as “. . . the public agency, which has the principal responsibility for carrying out or approving a project.” Other public agencies may use this Draft EIR in the decision-making or permit process and consider the information in this Draft EIR along with other information that may be presented during the CEQA process.

This Draft EIR was prepared by FirstCarbon Solutions, an environmental consultant. Prior to public review, it was extensively reviewed and evaluated by the City of Pleasanton. This Draft EIR reflects the independent judgment and analysis of the City of Pleasanton as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Sections 8 and 9 of this Draft EIR, respectively.

## 1.2 - Scope of the EIR

The City of Pleasanton issued a Notice of Preparation (NOP) for the project on October 24, 2013, which circulated until December 10, 2013 for the statutory 30-day public review period. The scope of this Draft EIR includes the potential environmental impacts identified in the NOP and issues raised by agencies and the public in response to the NOP. The NOP is contained in Appendix A of this Draft EIR. In addition, the City of Pleasanton held a scoping meeting during the Planning Commission’s November 13, 2013 hearing.

Twenty-five comment letters were received in response to the NOP. They are listed in Table 1-1 and are provided in Appendix A of this Draft EIR. Verbal comments on the NOP were also provided at the scoping meeting. They are listed in Table 1-2 and are included in the minutes of the November 13, 2013 Planning Commission meeting, which are provided in Appendix A.

**Table 1-1: NOP Comment Letters**

Status	Affiliation	Signatory	Date	EIR Section Where Comment Is Addressed
Public Agencies	Governor’s Office of Planning and Research, State Clearinghouse and Planning Unit	Scott Morgan, Director	October 22, 2013	N/A
	US Department of Transportation, Federal Aviation Administration	Camille Garibaldi, Environmental Protection Specialist	October 25, 2013	Section 3.3, Biological Resources; Section 3.7, Hazards and Hazardous Materials; Section 3.11, Noise
	California Department of Transportation, Division of Aeronautics	Philip Crimmins, Aviation Environmental Specialist	October 29, 2013	Section 3.9, Land Use and Planning
	California Department of Transportation, District 4	Erik Alm, District Branch Chief	November 13, 2013	Section 3.14, Transportation/Traffic
	City of Dublin	Obaid Khan, Senior Civil Engineer (Traffic/Transportation)	November 19, 2013	Section 3.14, Transportation/Traffic
	Alameda County Transportation Commission	Tess Lengyel, Deputy Director of Planning and Policy	November 25, 2013	Section 3.11, Noise; Section 3.14, Transportation/Traffic
	Alameda County Flood Control and Water Conservation District, Zone 7	Elke Rank	December 6, 2013	Section 3.8, Hydrology and Water Quality
	East Bay Regional Park District	Neoma Lavalle, Acting Senior Planner	December 10, 2013	Section 3.1, Aesthetics, Light, and Glare; Section 3.13, Public Services and Recreation; Section 3.14, Transportation/Traffic
	Pleasanton Unified School District	Robert Kingsley	December 10, 2013	Section 3.13, Public Services and Recreation
	Alameda County Airport Land Use Commission	Cindy Horvath, Senior Transportation Manager	December 10, 2013	Section 3.3, Biological Resources; Section 3.9, Land Use and Planning; Section 3.11, Noise;

Table 1-1 (cont.): NOP Comment Letters

Status	Affiliation	Signatory	Date	EIR Section Where Comment Is Addressed
Public Agencies (cont.)	City of Livermore	Susan Frost	December 11, 2013	Section 3.1, Aesthetics, Light, and Glare; Section 3.3, Biological Resources; Section 3.7, Hazards and Hazardous Materials; Section 3.8, Hydrology and Water Quality; Section 3.11, Noise; Section 3.14, Transportation/Traffic; Section 3.15, Utilities
Private Parties	Private Citizen	Donald G. Kahler	September 10, 2013	Section 3.7, Hazards and Hazardous Materials; Section 3.14, Transportation/Traffic
	Arnold and Porter for Pleasanton Gravel Company	Thomas A. Larsen	November 1, 2013	Section 3.14 Transportation/Traffic, Section 3.10 Mineral Resources
	Private Citizen	Donald G. Kahler	November 12, 2013	Section 3.7, Hazards and Hazardous Materials; Section 3.14, Transportation/Traffic
	Private Citizen(s)	Sidney Cohen	November 13, 2013	Section 3.1, Aesthetics, Light, and Glare; Section 3.3, Biological Resources; Section 3.7, Hazards and Hazardous Materials; Section 3.9, Land Use and Planning; Section 3.11, Noise; Section 3.12, Population and Housing; Section 3.13, Public Services and Recreation; Section 3.14, Transportation/Traffic; Section 5, Alternatives to Proposed Project
	Private Citizen	Matt Sullivan	November 13, 2013	Section 3.3, Biological Resources; Section 3.9, Land Use and Planning; Section 3.12, Population and Housing; Section 3.14, Transportation/Traffic; Section 5, Alternatives to Proposed Project
	Private Citizen	Nancy Allen	November 13, 2013	Section 3.14, Transportation/Traffic; Section 5, Alternatives to Proposed Project



**Table 1-1 (cont.): NOP Comment Letters**

Status	Affiliation	Signatory	Date	EIR Section Where Comment Is Addressed
	Arnold and Porter Pleasanton Gravel Company	Thomas A. Larsen	November 19, 2013	Section 3.2, Air Quality; Section 3.5, Geology, Soils, and Seismicity; Section 3.7, Hazards and Hazardous Materials; Section 3.9, Land Use and Planning; Section 3.10, Mineral Resources; Section 3.14, Transportation/Traffic; Section 4, Cumulative Effects
	Kiewit	Paul White	December 10, 2013	Section 3.9, Land Use and Planning; Section 3.14, Transportation/Traffic; Section 5, Alternative to Proposed Project;
	Private Citizen	Sidney Cohen	December 10, 2013	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.7, Hazards and Hazardous Material; Section 3.9, Land Use and Planning; Section 3.11, Noise; Section Population and Housing; Section 3.12, Population and Housing; Section 3.13, Public Services and Recreation; Section 3.14, Transportation/Traffic; Section 5, Alternatives to Propose Project; Not Applicable to CEQA
	Private Citizen	Kay Ayala	December 10, 2013	Section 3.13, Public Services and Recreation
	Citizens for a Caring Community	Becky Dennis	December 10, 2013	Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions; Section 3.12, Population and Housing; Section 5, Alternatives to Proposed Project
	Private Citizen	Carol and Sidney Cohen	November 6, 2013	Section 3.9, Land Use and Planning; Section 3.12, Population and Housing; Section 3.14, Transportation/Traffic; Section 5, Alternatives to Proposed Project
	Valley Trails Homeowners Association	Connie Cox	December 5, 2013	Section 3.8, Hydrology and Water Quality

**Table 1-1 (cont.): NOP Comment Letters**

Status	Affiliation	Signatory	Date	EIR Section Where Comment Is Addressed
	Arnold and Porter Pleasanton Gravel Company	Thomas A. Larsen	November 19, 2013	Section 3.2, Air Quality; Section 3.5, Geology, Soils, and Seismicity; Section 3.6, Greenhouse Gas Emissions; Section 3.7, Hazards and Hazardous Materials; Section 3.10, Mineral Resources; Section 3.10, Noise; Section 3.14, Transportation/ Traffic;

Source: FirstCarbon Solutions, 2013.

**Table 1-2: NOP Scoping Meeting Comments**

Affiliation	Name	EIR Section Where Comment Is Addressed
Private Parties	Heidi Massie	Section 3.13, Public Services and Recreation; Section 3.14 Transportation/Traffic
	Mary Switzer	Section 5, Alternatives to Proposed Project
	Kelly Cousins	Section 3.5, Geology, Soils, and Seismicity; Section 3.15, Utilities and Service Systems; Section 5, Alternatives to Proposed Project
	Becky Dennis, representing Citizens for a Caring Community	Section 3.2 Air Quality; Section 3.12, Population and Housing
	Don Kahler	Section 3.7, Hazards and Hazardous Materials; Section 3.14, Transportation/Traffic
	Kay Ayala	Section 3.10, Mineral Resources; Section 3.13, Public Services and Recreation
	Sidney Cohen	Section 3.1, Aesthetics, Light, and Glare; Section 3.3, Biological Resources; Section 3.7, Hazards and Hazardous Materials; Section 3.9, Land Use and Planning; Section 3.11, Noise; Section 3.12, Population and Housing; Section 3.13, Public Services and Recreation; Section 3.14, Transportation/Traffic; Section 5, Alternatives to Proposed Project
	Brian Bourg	Section 3.14, Transportation/Traffic
Karen Vifian	Section 3.14, Transportation/Traffic	

### 1.2.1 - Potentially Significant Environmental Issues

The NOP disclosed that the following topical areas may contain potentially significant environmental issues that will require further analysis in the EIR:

- Aesthetics, Light, and Glare
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Mineral Resources
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utility and Service Systems

### 1.2.2 - Environmental Issues Determined not to be Significant

The NOP identified a single topical area, Agricultural and Forest Land Resources that was determined not to be significant. An explanation of why this topical area was determined not to be significant is provided in Section 7, Effects Found not to be Significant.

In addition, after conducting environmental analysis, certain other topical areas were determined not to be significant and are included in Section 7, Effects Found not to be Significant. Accordingly, this Draft EIR contains limited analysis of the following topics:

- State Scenic Highway (Section 3.1, Aesthetics)
- Habitat, Natural Community, or Other Conservation Plan (Section 3.3, Biological Resources)
- Septic or Alternative Wastewater Disposal Systems (Section 3.5, Geology, Soils, and Seismicity)
- Private Airstrips (Section 3.6, Hazards and Hazardous Materials)
- Seiches, Tsunamis, or Mudflows (Section 3.7, Hydrology and Water Quality)
- Division of an Established Community (Section 3.8, Land Use)
- Conservation Plans (Section 3.8, Land Use)
- Private Aviation Noise (Section 3.9, Noise)
- Displacement of Persons or Housing (Section 3.10, Population and Housing)

## 1.3 - Organization of the EIR

This Draft EIR is organized into the following main sections:

- **Section ES: Executive Summary.** This section includes a summary of the Base Plan and alternatives to be addressed in the Draft EIR. A brief description of the areas of controversy and issues to be resolved, and overview of the Mitigation Monitoring and Reporting Program, in addition to a table that summarizes the impacts, mitigation measures, and level of significance after mitigation, are also included in this section.
- **Section 1: Introduction.** This section provides an introduction and overview describing the purpose of this Draft EIR, its scope and components, and its review and certification process.

- **Section 2: Project Description.** This section includes a detailed description of the project as represented by the Base Plan, including its location and characteristics. A discussion of the project objectives, intended uses of the Draft EIR, responsible agencies, and approvals that are needed for the project are also provided.
- **Section 3: Environmental Impact Analysis.** This section analyzes the environmental impacts of the project's Base Plan. Impacts are organized into major topic areas. Each topic area includes a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Section 3 are as follows:
  - **Section 3.1 - Aesthetics, Light, and Glare:** Addresses the potential visual impacts of development intensification and the overall increase in illumination produced by the Base Plan.
  - **Section 3.2 - Air Quality:** Addresses the potential air quality impacts associated with Base Plan implementation, as well as consistency with the Bay Area Air Quality Management District 2005 Ozone Strategy.
  - **Section 3.3 - Biological Resources:** Addresses the Base Plan's potential impacts on habitat, vegetation, and wildlife; the potential degradation or elimination of important habitat; and impacts on listed, proposed, and candidate threatened and endangered species.
  - **Section 3.4 - Cultural Resources:** Addresses known historical resources and potential archaeological and paleontological resources.
  - **Section 3.5 - Geology, Soils, and Seismicity:** Addresses the potential impacts the Base Plan may have on soils and assesses the effects of Base Plan development in relation to geologic and seismic conditions.
  - **Section 3.6 – Greenhouse Gas Emissions:** Addresses the Base Plan's emission of greenhouse gases.
  - **Section 3.7 – Hazards and Hazardous Materials:** Addresses the potential for the presence of hazardous materials or conditions within the Plan Area and in the vicinity that may have the potential to impact human health.
  - **Section 3.8 – Hydrology and Water Quality:** Addresses the potential impacts of the Base Plan on local hydrological conditions, including drainage areas, and changes in the flow rates.
  - **Section 3.9 – Land Use and Planning:** Addresses the potential land use impacts associated with consistency with the City of Pleasanton General Plan, Pleasanton Municipal Code, Livermore Municipal Airport Land Use Plan, and the Alameda Local Agency Formation Commission annexation criteria.
  - **Section 3.10 – Mineral Resources:** Addresses the potential impacts to mineral resources in the Specific Plan area as a result of Base Plan implementation.
  - **Section 3.11 – Noise:** Addresses the potential noise impacts during construction and at project buildout from mobile and stationary sources. The section also addresses the impact of noise generation on neighboring uses.
  - **Section 3.12 – Population and Housing:** Addresses the potential of the Base Plan to induce direct or indirect population growth.
  - **Section 3.13 – Public Services and Recreation:** Addresses the impacts upon public service providers including fire, police, schools, parks, and other recreational facilities.

- **Section 3.14 – Transportation/Traffic:** Addresses the impacts on the local and regional roadway system, parking, emergency access, public transportation, bicycle, and pedestrian access.
- **Section 3.15 – Utilities and Service Systems:** Addresses the impacts on water supply, wastewater, storm drainage, and solid waste.
- **Section 4: Cumulative Effects.** Addresses the cumulative impacts associated with the Base Plan, including the impacts of past, present, and probable future projects.
- **Section 5: Alternatives to the Proposed Project.** This section compares the impacts of the Base Plan with eight land-use project alternatives including a No Project Alternative and a No Project/No Build Alternative.
- **Section 6: Other CEQA Considerations.** This section provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts. In addition, the proposed Base Plan’s energy demand is discussed.
- **Section 7: Effects Found not to be Significant.** This section contains analysis of the topical sections not addressed in Section 3.
- **Section 8: Organizations and Persons Consulted/List of Preparers.** This section contains a full list of persons and organizations that were consulted during the preparation of this Draft EIR, as well as the authors who assisted in the preparation of the Draft EIR, by name and affiliation.
- **Section 9: References.** This section contains a full list of references that were used in the preparation of this Draft EIR.
- **Appendices:** This section includes all notices and other procedural documents pertinent to the Draft EIR, as well as all technical material prepared to support the analysis.

## 1.4 - Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the Draft EIR has also been described. The documents and other sources that have been used in the preparation of this Draft EIR include, but are not limited to:

- East Pleasanton Specific Plan
- City of Pleasanton General Plan
- City of Pleasanton General Plan Environmental Impact Report (State Clearinghouse No. 20055122139)
- City of Pleasanton Municipal Code
- Livermore Municipal Airport Land Use Plan

These documents are specifically identified in Section 9, References, of this Draft EIR. In accordance with CEQA Guidelines Section 15150(b), the referenced documents and other sources used in the preparation of the Draft EIR are available for review at the address in Section 1.6 below.

## 1.5 - Documents Prepared for the Project

The following technical studies and analyses were prepared for the proposed project:

- Air Quality Analysis, prepared by FirstCarbon Solutions. (The analysis is wholly contained in Section 3.2, Air Quality; modeling data is provided in Appendix B)
- Biological Resources Analysis, prepared by FirstCarbon Solutions. (The analysis is wholly contained in Section 3.3, Biological Resources; supporting data is provided in Appendix C.)
- Geotechnical Investigation, Prepared by Treadwell & Rollo (Appendix D)
- Phase I Environmental Site Assessment, Prepared by Brown and Caldwell (Appendix E)
- Soil and Groundwater Characterization Discussion, Prepared by ENGEO (Appendix E)
- Radius Map Report, Prepared by Environmental Data Resources (Appendix E)
- Noise Analysis, prepared by Kunzman and Associates. (The analysis is wholly contained in Section 3.10, Noise; modeling data prepared by Extant Noise Consultants and FCS is provided in Appendix F.)
- Transportation Impact Study, prepared by Fehr & Peers Transportation Consultants (Appendix H)
- Water Supply Assessment, prepared by WJM C&E (Appendix I)

## 1.6 - Review of the Draft EIR

Upon completion of the Draft EIR, the City of Pleasanton filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the City of Pleasanton Planning Division and the Pleasanton Library. The address for each location is provided below:

City of Pleasanton  
Planning Division  
P.O. Box 520  
200 Old Bernal Avenue  
Pleasanton, CA 94566  
Hours:  
Monday–Friday: 8 a.m. to 5 p.m.  
Saturday–Sunday: Closed

Pleasanton Library  
400 Old Bernal Avenue  
Pleasanton, CA 94566  
Hours:  
Monday–Thursday: 10 a.m. to 9 p.m.  
Friday–Saturday: 10 a.m. to 5 p.m.  
Sunday: 1 p.m. to 5 p.m.

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

City of Pleasanton  
Planning Division  
P.O. Box 520  
Pleasanton, CA 94566  
Attn: Shweta Bonn, Senior Planner  
Phone: (925) 931-5611  
Fax: (925) 931-5483  
Email: [sbonnn@cityofpleasantonca.gov](mailto:sbonnn@cityofpleasantonca.gov)

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the Pleasanton Planning Commission on the project. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

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## SECTION 2: PROJECT DESCRIPTION

This Environmental Impact Report (EIR) analyzes the potential environmental effects of the proposed East Pleasanton Specific Plan, located in Pleasanton, California. The development potential of the East Pleasanton Specific Plan (for the purposes of CEQA, the proposed project) is based on the East Pleasanton Specific Plan’s Base Plan. The Base Plan represents land use designations and resulting development potential as developed by the East Pleasanton Specific Plan Task Force and selected by the City Council.

### 2.1 - Project Location

The East Pleasanton Specific Plan (Specific Plan) area (Plan Area) encompasses 1,110 acres, partially within the City of Pleasanton and partially within the unincorporated jurisdiction of Alameda County (Exhibit 2-1). The entire Plan Area is within the Pleasanton General Plan Planning Area and Pleasanton’s Sphere of Influence (Exhibit 2-2). The Specific Plan boundaries are located on the Livermore, California, United States Geological Survey 7.5-minute quadrangle, Township 3 South, Range 1 East, Unsectioned (Latitude: 37°40’15” North; Longitude: 121°51’30” West).

### 2.2 - Existing Conditions

#### 2.2.1 - Land Use

Exhibit 2-3 shows the current parcel boundaries within the Plan Area. Table 2-1 lists the current property owners, acreages, and land uses of the parcels that comprise the Plan Area.

The 1,110-acre Plan Area is part of the larger Livermore-Amador Valley Quarry Area Reclamation Plan lands, and nearly the entire Plan Area has been mined for aggregate in the past. Three man-made lakes—Cope Lake, Lake H, and Lake I—and immediately surrounding lands encompass approximately 704 acres of the Plan Area. These lakes were created as a result of sand and gravel mining operations. Reclaimed quarry lands constitute much of the remainder of the Plan Area. The southwest portion of the Plan Area includes the City of Pleasanton Operations Service Center (86,000 square feet of building space on 18 acres), Pleasanton Transfer Station and Recycling Center (53,500 square feet of building space on 7.7 acres), and areas previously disturbed by industrial land uses. An additional five buildings were formerly located in the southern portion of the Plan Area: a 12,000-square-foot office building, a 12,150-square-foot shop building, a 10,350-square-foot warehouse, a 900-square-foot storage shed, and a 7,200-square-foot truck shop building. These buildings were removed in 2013.

Some scattered mature trees remain mostly in the southern portion of the Plan Area.

Lakes H and I are part of a series of lakes commonly known as the “Chain of Lakes” that evolved as mineral resources were extracted and the resulting “pits” filled with groundwater. These lakes provide a number of valuable water-related functions, including stormwater management, seasonal water storage, groundwater recharge, and wildlife habitat. Cope Lake and Lake I are owned by the Alameda County Flood Control and Water Conservation District Zone 7 Water Agency (Zone 7). Lake H is

presently owned by Pleasanton Gravel Company (PGC) but is scheduled to be dedicated to Zone 7 in 2017.

**Table 2-1: Plan Area Existing Land Use**

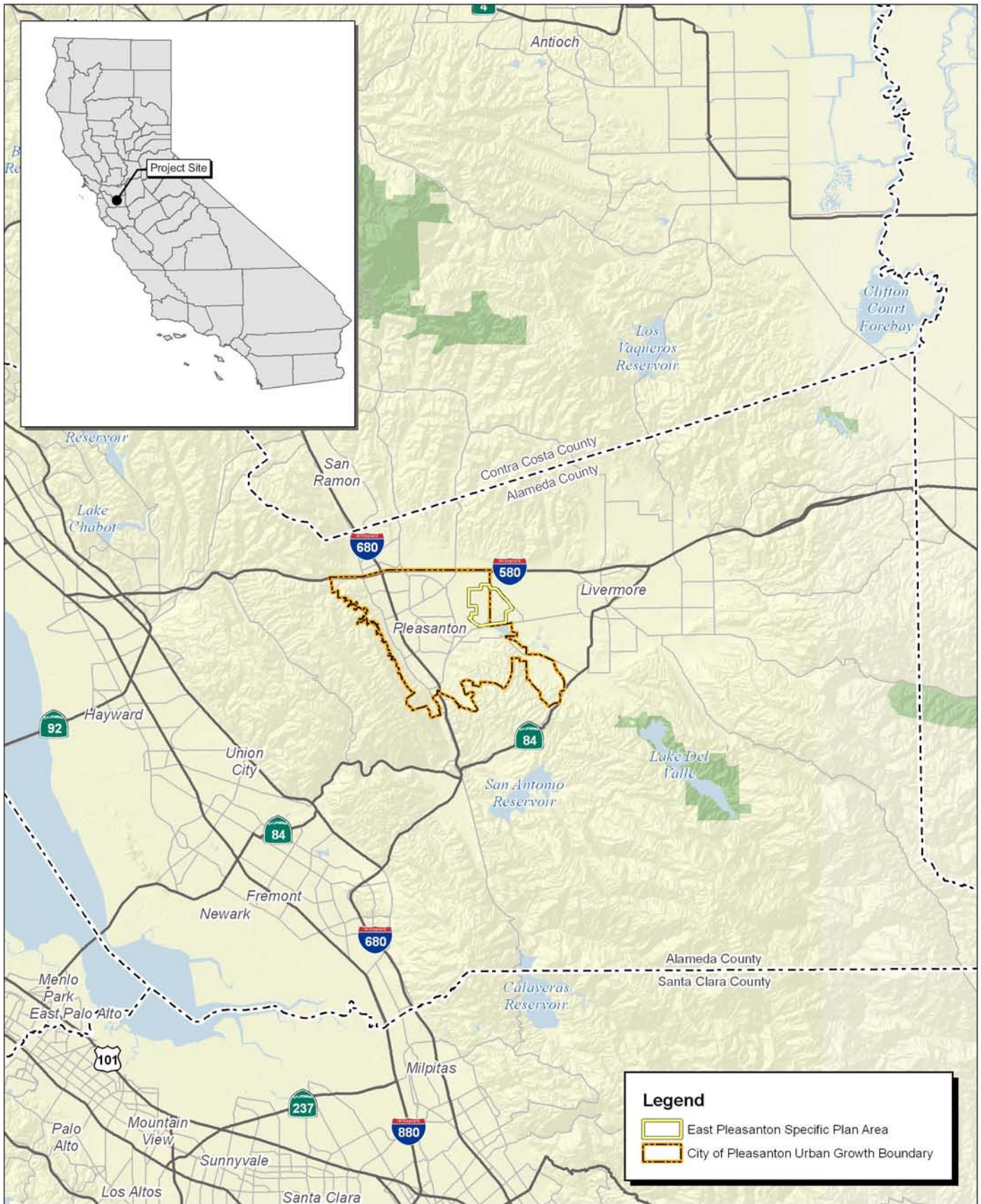
Site # <sup>1</sup>	Owner	Existing Land Use	Acreage
1 - 11	Zone 7 Water Agency (Alameda County)	Lake I and Cope Lake	588.5
12 - 19	Legacy/Lionstone Group	Former building locations, disturbed undeveloped land, ruderal vegetation, concrete structures and pads, storage shed, aggregate piles, debris piles	330.0
20 - 22	City of Pleasanton	Operations Services Center—corporation yard type uses including office space, storage yards, facility maintenance related equipment and materials, police firing range and fire department training facility	18.0
23 - 25	Pleasanton Transfer Station and Recycling Center	Transfer station, warehouse, exterior sorting areas, vehicle parking areas, debris piles, other industrial buildings, scale and scale house, and an office building	7.7
26 - 29	Pleasanton Gravel Company	Lake H, to be dedicated to Zone 7 in 2017	115.5
30 - 31	Kiewit Infrastructure Company	Three storage/office buildings, concrete pads, ruderal vegetation	50.4
<b>Total Acreage</b>		—	<b>1,110.1</b>
Note: <sup>1</sup> Site numbers correspond to numbers identified on Exhibit 2-3. Source: City of Pleasanton EPSP Task Force, 2012.			

The main property owners and existing land uses within the Plan Area are described below.

**Zone 7 Water Agency**

The Zone 7 Water Agency provides flood protection to eastern Alameda County and delivers drinking water to retailers serving more than 200,000 people in Pleasanton, Livermore, Dublin, and the Dougherty Valley area (Zone 7 Water Agency 2012). Within the Plan Area, the Zone 7 Water Agency lands consist of 588.5 acres, including Lake I and Cope Lake and the banks surrounding them.

- Lake I dominates the northwestern portion of the Plan Area and has steep banks. A recreational corridor with a walking trail is presently located along its western bank.
- Cope Lake dominates the middle and eastern portion of the Plan Area and has areas of steep banks. Adjacent to the north of Cope Lake is a pumping facility owned and operated by Zone 7.
- Lake H is owned by the PGC but is scheduled to be dedicated to Zone 7 in 2017.

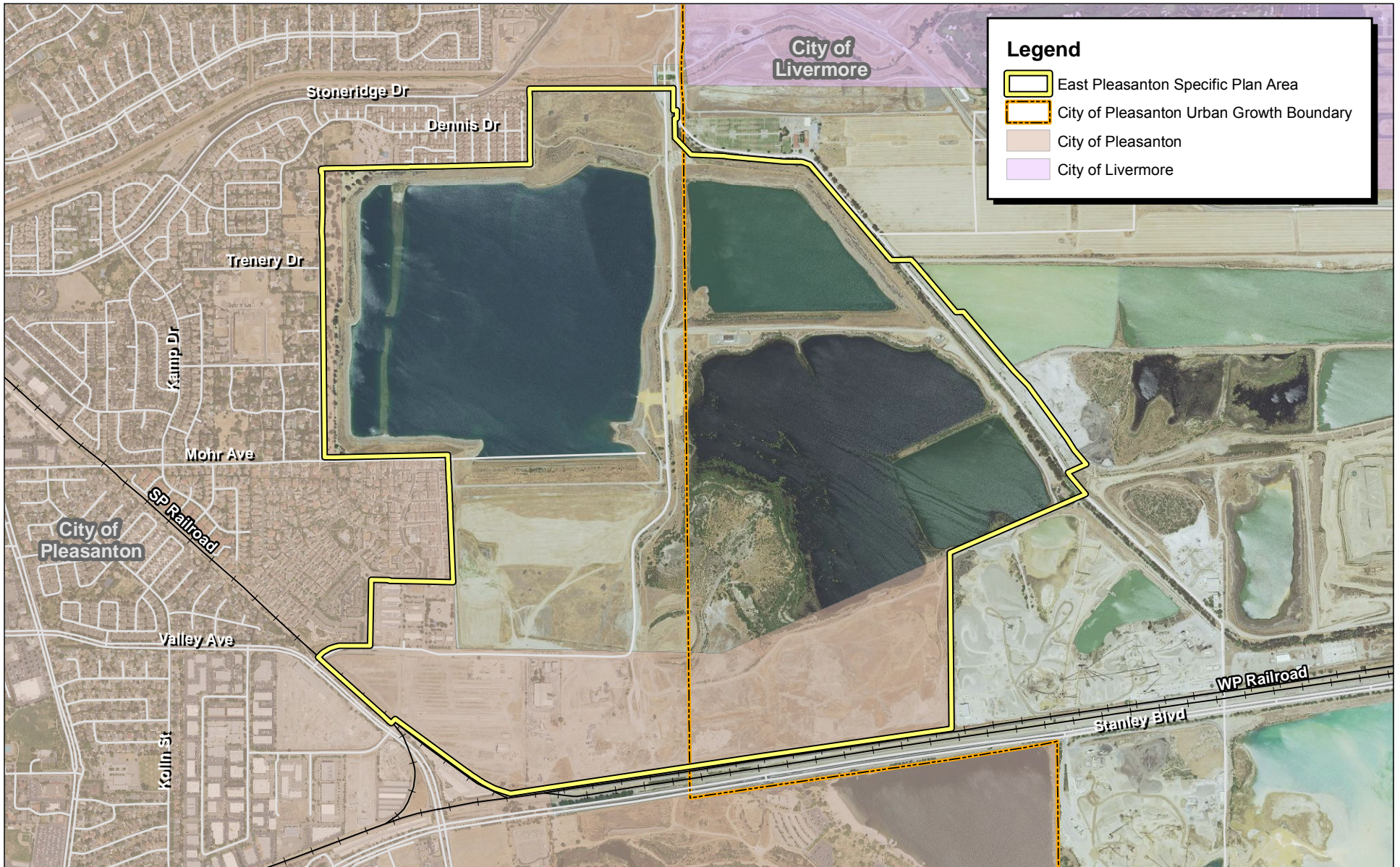


Source: ESRI, City of Pleasanton



## Exhibit 2-1 Regional Location Map

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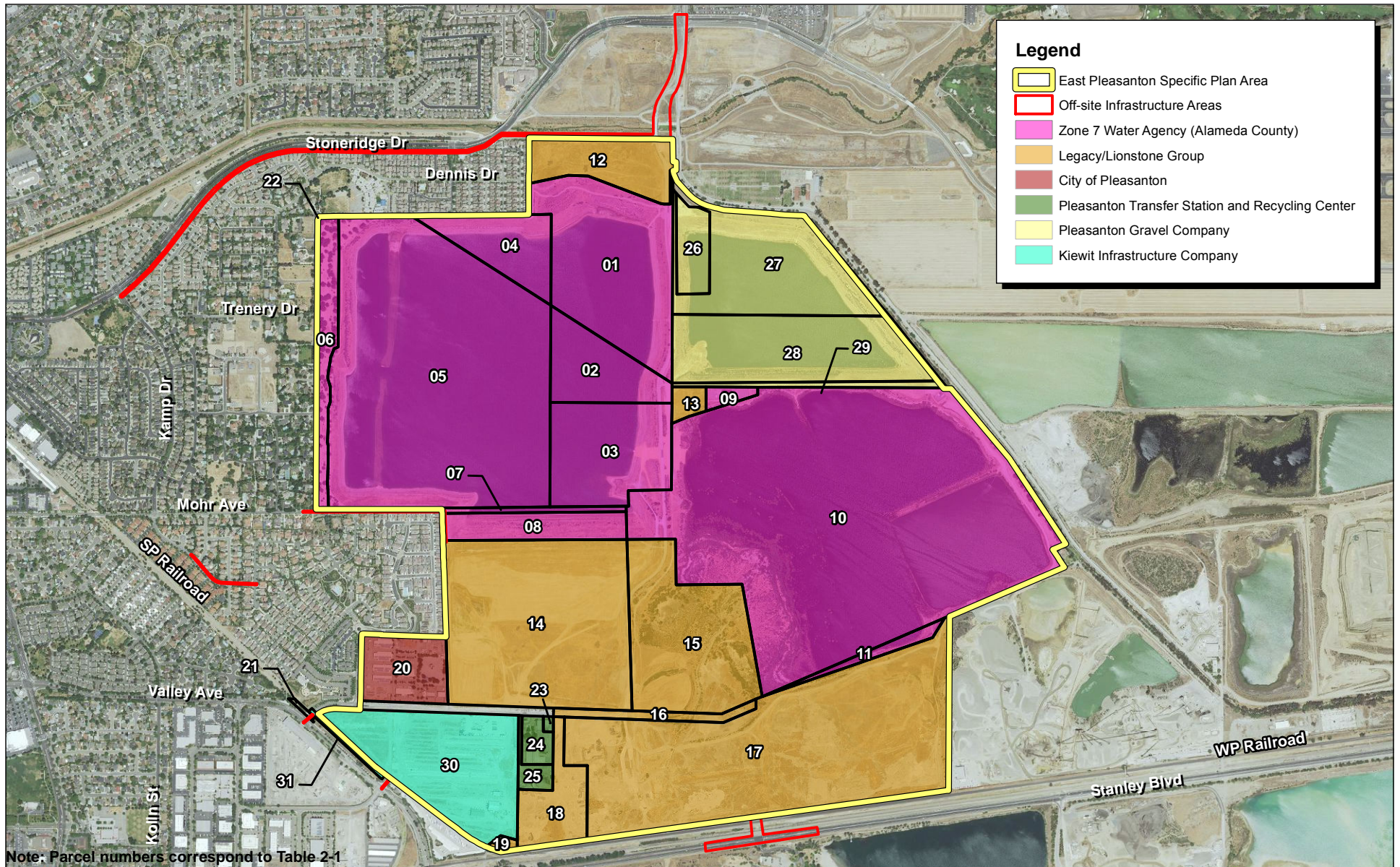


Source: ESRI Aerial Imagery, City of Pleasanton

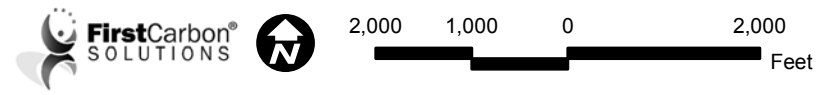


## Exhibit 2-2 Local Vicinity Map

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Note: Parcel numbers correspond to Table 2-1  
 Source: ESRI Aerial Imagery. City of Pleasanton.



## Exhibit 2-3 East Pleasanton Specific Plan Area Parcels

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Accordingly, Zone 7 is anticipated to own approximately 704 acres within the Plan Area by 2017. Lands owned and operated by Zone 7 are considered Alameda County property and are not subject to the City of Pleasanton zoning regulations related to land use (City of Pleasanton 2012).

### **Legacy/Lionstone Group**

The Legacy/Lionstone Group property consists of 330 acres within the southern portion of the Plan Area that straddles the Pleasanton city-limits. Within the city-limits, south of the current terminus of Busch Road, the Legacy/Lionstone lands include former building locations, ruderal vegetation, and debris piles. The southeastern portion of the Legacy/Lionstone lands appears highly disturbed from past industrial activities and includes scattered debris and soil piles and ruderal vegetation. High-voltage lines extend along the southern border of the property along the Union Pacific Railroad tracks and Stanley Boulevard. Most of the northern Legacy/Lionstone lands have been mined and reclaimed, and contain areas of ruderal vegetation. A private extension of El Charro Road extends through the middle of the northern Legacy/Lionstone lands.

### **City of Pleasanton's Operations Service Center.**

The City of Pleasanton's Operations Service Center consists of 18 acres on the north side of Busch Road within the city-limits. This site is developed with a series of corporation yard uses including office space, storage yards, facility maintenance related equipment and materials, police firing range, and fire department training facility.

### **Pleasanton Transfer Station and Recycling Center**

The Pleasanton Transfer Station and Recycling Center consists of 7.7 acres on the south side of Busch Road in the southern portion of the Plan Area, east of the Kiewit property. The site contains a large warehouse where refuse is sorted, exterior sorting areas, vehicle parking areas, debris piles, other industrial buildings, scale and scale house, and an office building.

### **Pleasanton Gravel Company**

The PGC lands consist of 115.5 acres in the northeastern portion of the Plan Area, which contains Lake H. PGC currently owns Lake H, but it is scheduled to be dedicated to the Zone 7 Water Agency in 2017.

### **Kiewit Infrastructure Company**

The Kiewit property consists of 50.4 acres on the south side of Busch Road within the city-limits at the southwestern corner of the Plan Area. It contains three storage/office buildings. The remainder of the site is vacant and consists of ruderal vegetation and large areas of concrete pads. High-voltage lines extend along the properties' southwest border adjacent to the Valley Avenue frontage.

## **2.2.2 - Existing Circulation System**

Existing public circulation within the Plan Area is limited, consisting of Busch Road extending east from Valley Avenue to an access-controlled gate east of the Pleasanton Transfer Station and Recycling Center. Public access is also limited from the north by a gate located south of Arroyo Mocho Canal. A north/south oriented paved road, located between Lake I and Lake H/Cope Lake,

connects the two access controlled gates. An east/west oriented paved roadway is also located between Lake H and Cope Lake.

### 2.2.3 - Surrounding Land Uses

#### North

The northern edge of the Plan Area is bordered by Amaral Park, Mohr Elementary School, single-family housing, Arroyo Mocho Canal, Stoneridge Drive Specific Plan Area, El Charro Specific Plan Area, open space, agricultural land, and the Livermore Municipal Airport. Arroyo Mocho Canal is adjacent to, but outside of, the Plan Area to the north, northeast, and east. Staples Ranch (as part of the Stoneridge Drive Specific Plan Amendment/Staples Ranch), includes a recently constructed continuing care facility and is planned to include a 17-acre community park along the north side of Arroyo Mocho Canal, as well as a 5-acre neighborhood park, commercial uses, and an auto mall south of Interstate 580 (I-580). East of El Charro Road are the San Francisco Premium Outlets, open space, and stormwater detention facilities developed under the El Charro Specific Plan in Livermore. East of the El Charro Plan Area are the Livermore Golf Course and Livermore Airport.

#### East

A quarry plant owned and operated by Vulcan Materials is located to the immediate east of the Plan Area. An access road, heavily used by gravel trucks, borders the eastern boundary of the Plan Area. Surface mining activities dominate the eastern boundary of the Plan Area, including active mining, dry mining pits, and former mining pits filled with groundwater. Horse stables and hay fields lie farther to the northeast, with the Livermore Golf Course and Livermore Airport located beyond.

#### South

The Union Pacific Railroad tracks and Stanley Boulevard form the southern boundary of the Plan Area. Stanley Boulevard is a four-lane divided roadway. High-voltage power lines also run parallel with Stanley Boulevard and the railroad tracks. South of Stanley Boulevard are multiple land uses including more surface mining activities, an electrical substation, a BMX park, and Shadow Cliffs Regional Recreation Area which consists of an 80-acre lake, parking lots, open space area, and an arroyo with a small chain of ponds.

#### West

The western edge of the Plan Area is bordered by Valley Avenue and a variety of land uses including warehousing and other industrial uses, a self-storage facility, Centerpointe Presbyterian Church, single-family housing, Ironwood Active Adult Community, and the Martin Avenue residential neighborhood. Historic Downtown Pleasanton is 1.5 miles west of the project site.

### 2.2.4 - Land Use Designations

Approximately 261 acres of the Plan Area are located within the City of Pleasanton, and the remaining 849 acres are located within the unincorporated jurisdiction of Alameda County.

## City of Pleasanton

### **General Plan**

The City of Pleasanton General Plan Land Use Map identifies a series of seven land uses that may be considered for the Plan Area: Public and Institutional, High Density Residential, Business Park, Retail/Highway/Service Commercial/Business and Professional Offices, Parks and Recreation, General and Limited Industrial, and Water Management/Habitat/Recreation. With the exception of the Water Management/Habitat/Recreation area (which covers the existing lakes), the General Plan Map does not detail the actual location of the potential future land uses but instead leaves this for the Specific Plan process to determine. Exhibit 3.9-1 in Section 3.9, Land Use and Planning, depicts the current General Plan land use designations in the project area.

### **Zoning**

Portions of the Plan Area located within the City of Pleasanton are currently zoned Public & Institutional (Operations Service Center), and General Industrial (lands south of Busch Road). Exhibit 3.9-2 in Section 3.9, Land Use and Planning depicts the current zoning in the project area.

### **Urban Growth Boundary**

As shown on Exhibit 2-2, the City of Pleasanton's Urban Growth Boundary bisects the project site in a north-south direction.

## County of Alameda

### **General Plan**

The County of Alameda's General Plan designates the Plan Areas outside of the City of Pleasanton as a mixture of Water Management, Low Density Residential, and Medium Density Residential.

## 2.3 - Project Background

### 2.3.1 - Plan Area Background

The Plan Area is part of a considerably larger area commonly known as the Livermore-Amador Valley Quarry Lands (Quarry Lands). The Quarry Lands contain the largest single concentration of sand and gravel deposits in the Bay Area. This land has long been of special importance because of the value of its mineral deposits to the region's economy, the environmental impacts created by extracting and transporting sand and gravel, and the manner in which excavated land is reclaimed for future use.

The California Division of Mines and Geology has for many years designated the Quarry Lands as an "Aggregate Resource Area of Regional Significance." The primary effect of this designation is that it requires both Alameda County and the City of Pleasanton to identify and promote the conservation and development of this construction grade aggregate in their general plans. Most of the Quarry Lands have either been or are in the process of being mined, and mining operations are expected to continue through approximately 2040. With the recent completion of mining in the Plan Area, this area has become the subject of planning interest by the property owners and the City of Pleasanton for future reuse and conservation.

The Pleasanton General Plan specifies that in order to accommodate development in this transitional area, the preparation of a specific plan should first be initiated. The plan is to identify and locate a series of appropriate land uses; integrate a traffic circulation system to serve these uses, including the extensions of El Charro Road and Busch Road; provide for the extension of utilities throughout the Plan Area; and create a funding mechanism for the infrastructure required to support future development.

### 2.3.2 - Specific Plan Development Process

The East Pleasanton Specific Plan Task Force was appointed by the City Council in July 2012 to oversee the preparation of the Specific Plan. The 20-member Task Force consisted of two Planning Commissioners, and representatives from the Housing Commission, Parks and Recreation Commission, and Zone 7 Water Agency. It also included representatives of the two major Plan Area private property owners, surrounding neighborhoods, and at-large community members.

The Task Force was assisted by city staff and technical consultants. Monthly meetings were conducted to receive public input and evolve plans. Community workshops were also conducted at milestone points in the planning process to further encourage public participation.

The overall planning process used by the Task Force to prepare the EPSP consisted of the following milestone steps:

- Gathering of background information
- Analysis of site opportunities and constraints
- Development of a vision and goals
- Preparation of land use/circulation plan alternatives
- Analysis of plan alternatives
- Selection of a Base Plan and environmental impact report (EIR) alternatives
- Concurrent preparation of a draft Specific Plan and EIR
- Formal public review of planning documents and City Council action

On August 7, 2014, the Task Force selected a Base Plan and nine plan alternatives. On December 15, 2014, the City Council confirmed the Base Plan and eight of the nine alternatives (removing the 1,759-unit alternative from consideration).

## 2.4 - Project Characteristics

### 2.4.1 - Overview

The East Pleasanton Specific Plan serves as a detailed extension of the Pleasanton General Plan for a 1,110-acre portion of eastern Pleasanton. The purpose of the Specific Plan is to provide guidance for the coordination of the basic land use pattern, development and design standards and guidelines, circulation network and other public infrastructure, environmental protection, financing, and implementation requirements for development of the Plan Area.

Implementation of the Specific Plan would include rezoning, pre-zoning, eventual annexation of a portion of the Plan Area to the City of Pleasanton, and adjustment of the Urban Growth Boundary.

### 2.4.2 - Development Potential

Table 2-2 summarizes the development potential of the Specific Plan, as defined by the Base Plan (or proposed project) developed by the Task Force and selected by the City Council. While this EIR evaluates other alternatives, the Base Plan is being used as a point of reference for analysis. Alternatives to the Base Plan are discussed in Section 5, Alternatives to the Proposed Project.

According to the Base Plan, at buildout, the Specific Plan area boundaries would contain 1,300 single-family housing units and approximately 1.6 million square feet of retail, office, and industrial building space on 1,110 gross acres. The locations of these land uses are shown in the Specific Plan diagram in Exhibit 2-4.

**Table 2-2: Specific Plan Land Use Summary**

Land Use Type	Residential Units	Building Square Footage	Gross Acreage
Residential	1,300	—	215
Retail	—	91,000 <sup>1</sup>	7 <sup>1</sup>
Campus Office	—	442,000	24
Industrial	—	1,057,000 <sup>2</sup>	84
Destination Use	—	46,000	3
Public and Institutional	—	86,000 <sup>3</sup>	18
Public Park	—	—	53
Water Management/Habitat/ Recreation (existing)	—	—	706
<b>Total</b>	<b>1,300</b>	<b>1,636,000<sup>4</sup></b>	<b>1,110</b>

**Notes:**

All acreages are rounded to the nearest whole number.

The potential elementary school that could be located in the Public Park area is not included in total square footage but has been considered programmatically.

<sup>1</sup> The retail square footage is inclusive of 61,000 square feet of building space on 5 gross acres located in the Retail Overlay on the Campus Office land use north of Lake I. The 61,000 square feet of building space on 5 gross acres would be dedicated to either retail or campus office, but not both. To provide for a conservative analysis, this EIR assumes the square footage and acreage would be dedicated to retail because it would have a greater land use intensity

<sup>2</sup> Square footage for the Industrial land use type is inclusive of the 53,500 square feet of existing building space at the Pleasanton Transfer Station and Recycling Center, which may eventually be relocated within the Plan Area.

<sup>3</sup> The Public and Institutional land use type consists of the existing City of Pleasanton Operations Service Center site and the approximately 86,000 square feet of existing building space. The Operations Service Center would remain in its current location.

<sup>4</sup> The total square footage is not inclusive of the 86,000 square feet of existing building space at the City of Pleasanton Operations Service Center Site because it would remain in its current location and would not be altered as a result of Specific Plan buildout.

Source: Gates and Associates, 2014.

**Residential**

Residential areas are planned in the southwestern quadrant of the Plan Area. A total of 1,300 single-family housing units would be provided in varying densities. Two higher-density, single-family residential areas are centrally located. Table 2-3 summarizes the proposed residential land use types. Private open space would be located throughout the residential areas in the form of landscaped buffers along roadways and trails, open space corridors, detention basins, neighborhood parks, and pocket parks. As noted in the Specific Plan, the transfer of housing densities within each individual landholding may be permitted through the PUD process, subject to meeting the following standards: the total number of dwelling units allowed per landowner may not exceed the sum of the number of units allowed in each landowner’s underlying housing density zones; housing density may not exceed 4 units per acre in residential areas located near existing outlying Pleasanton residential neighborhoods; and the transfer of density must result in greater visual diversity than is otherwise evident by the Base Plan.

**Table 2-3: Residential Uses Development Summary**

Residential Density	Units	Gross Acres <sup>1</sup>
<5 du/acre	558	132
5.1-8 du/acre	456	57
8.1-11 du/acre	286	26
Total Housing	1,300	215

Notes:  
du = dwelling units  
<sup>1</sup> The gross acreage includes roadways and private open space.  
Source: Gates and Associates, 2014.

**Low Density Residential – 5.0 Dwelling Units per Acre and Under**

The Residential (5du/ac and under) land use area permits lots of 6,500 square feet to greater than 1 acre, and accommodates one- and two-story detached single-family homes. Vehicular access would be provided by public streets. This is the lowest residential density and is planned adjacent to existing outlying residential neighborhoods to minimize impacts on residents.
















**Medium Density Residential – 5.1 to 8.0 Dwelling Units per Acre**

The Residential (5.1 to 8.0 du/ac) land use area permits lots of 3,500 square feet to less than 6,500 square feet, and accommodates two- and three-story detached single-family homes. Vehicular access would be provided by private drives and fronting or rear access alleys. Common visitor parking and open space/recreation amenities such as play areas, tot lots, swimming pools, trails, etc. would be required.

**Compact Residential – 8.1 to 11.0 Dwelling Units per Acre**

The Residential (8.1 to 11.0 du/ac) land use area permits lots of 2,000 square feet to less than 3,500 square feet, and accommodates two- and three-story detached and attached single-family homes. Vehicular access would be provided by private drives and fronting or rear access alleys. Paseos that provide front access entries would be typical. Common visitor parking and open space/recreation amenities would be required.



- |   |                                      |   |                                       |
|---|--------------------------------------|---|---------------------------------------|
|  | Single Family Residential - 4 DU/AC  |  | Retail                                |
|  | Single Family Residential - 8 DU/AC  |  | Industrial                            |
|  | Single Family Residential - 11 DU/AC |  | Public & Institutional                |
|  | Zone 7 Open Space                    |  | Destination Use                       |
|  | Private Open Space                   |  | Trail                                 |
|  | City Parks                           |  | Potential Public School/<br>Park Site |
|  | Campus Office                        |  | Staging Area                          |
|  | Retail Overlay                       |   |                                       |

NOTE : Trails are conceptual only. Those on Zone 7 property will be subject to Zone 7 review and approval.

Source: City of Pleasanton, 2013



## Exhibit 2-4 Land Use Plan

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## **Retail**

Proposed retail uses are planned within the general area at the northwest and southwest corner of Busch Road and El Charro Road, close to the planned residential uses. A Retail Overlay would also allow for retail uses north of Lake I on a portion of land designated for Campus Office uses. As noted in Table 2-1, proposed retail square footage is inclusive of 61,000 square feet of building space on 5 gross acres located in the Retail Overlay on the Campus Office land use north of Lake I. This area would be dedicated to either retail or campus office, but not both. To provide for a conservative analysis, this EIR assumes the square footage and acreage would be dedicated to retail, because it would have a greater land use intensity.

## **Campus office**

Two areas—one north of Lake I and one south of Lake I—would allow for Campus Office development. As previously mentioned, a retail overlay component would be included for the eastern portion of the Campus Office area above Lake I. The purpose of the Campus Office designation is to allow for either a large-scale office park for a single entity or a variety of separate office type uses within a campus-like setting.

## **Industrial**

The southeast portion of the Plan Area would allow for business parks, research and development, industrial and distribution uses, as well as the possible future relocation of the Pleasanton Transfer Station and Recycling Center.

## **Destination Use**

The 3-acre lakefront area located at the convergence of the three lakes would be designated as Destination Use and would allow for a variety of unique uses such as a restaurant, conference facilities, or winery.

## **Public and Institutional**

The City of Pleasanton Operations Service Center, designated Public and Institutional, would remain in its present location.

## **Public Parks**

The Specific Plan includes a series of several park and open space areas. An open space community park is planned east of El Charro Road, with potential opportunities for additional trails and vista points in the Zone 7 lands to the east, adjacent to Cope Lake.

An active recreation park is planned along the south side of Lake I. This area would also include an overlay to allow for the alternative development of an elementary school/neighborhood park that would replace the active recreational facility, if warranted.

A village green is planned near the west side of the Busch Road and El Charro Road intersection.

## **Water Management/Habitat/Recreation (existing)**

Zone 7 land surrounding existing Lakes H and I and Cope Lake, would continue as open space. In addition, a north/south open space spine and open space corridors connecting to the spine would be located throughout the residential areas.

## **Circulation**

The proposed circulation system is intended to minimize traffic congestion and noise on the outlying City streets and neighborhoods. Neighborhoods would be interconnected with streets, bike paths, and pedestrian trails, and with trail linkages to existing neighborhoods and the outlying lakes, parks, schools, and the regional trail system.

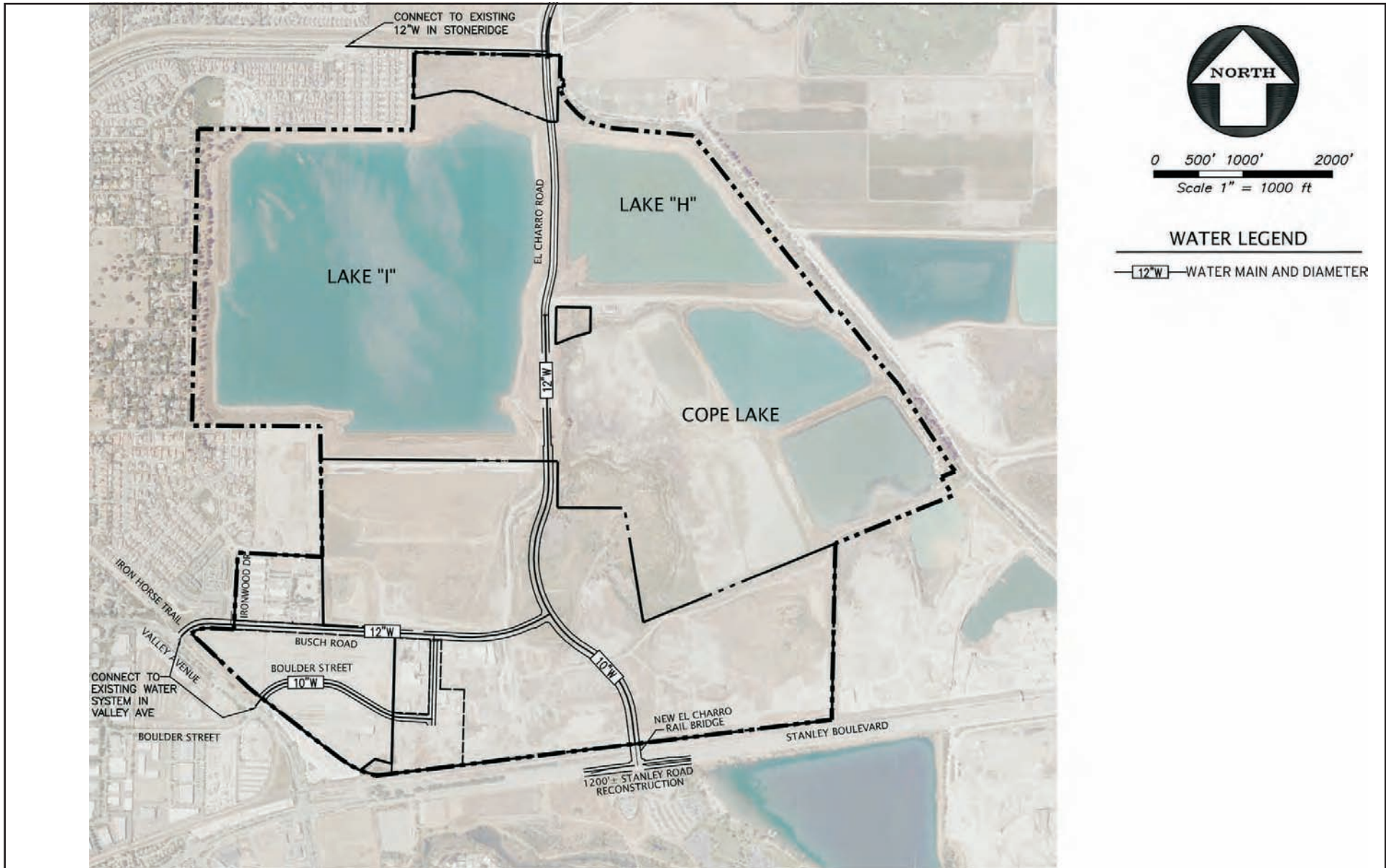
To accommodate circulation in the Plan Area, El Charro Road would be extended south through the Plan Area. El Charro Road would utilize an existing bridge over Arroyo Mocho for southbound traffic, and a new bridge will be constructed for northbound traffic. In the southern portion of the Plan Area, El Charro Road would traverse below grade to avoid an at-grade crossing of the Union Pacific railroad tracks. El Charro Road would ultimately connect at the Shadow Cliffs Regional Park driveway entry on Stanley Boulevard. Approximately 1,200 feet of Stanley Boulevard would be reconstructed to accommodate the new intersection. Busch Road is designed as a two-lane roadway that would connect to the extended El Charro Road. Boulder Street would be extended from its current intersection with Valley Avenue to Busch Road. These arterial and collector streets would be further served by a system of various local streets and alleys. The “complete street” network would eventually be comprised of both Specific Plan roadways as indicated in Exhibit 2-4 and minor roadways to be planned for each major development.

Pedestrian improvements include sidewalks and easily accessible walking trails within the park and open space areas. Bicycle paths have been included within the Specific Plan Area to encourage and allow for alternatives to motor vehicles and to connect with the City’s existing bicycle path network. The roadway system will also facilitate use of public transportation facilities by providing bus pull-outs and shelters. The exact location of these facilities will be identified through the development process along with coordination with Livermore Amador Valley Transit Authority (LAVTA).

## **Utilities**

New public water, recycled water, sanitary sewer, stormwater drainage, and other public infrastructure are planned to be extended throughout the Plan Area (Exhibit 2-5 through Exhibit 2-8). Cost sharing of all public infrastructure is planned on a pro-rata share basis from all benefiting private developers.

According to the Water Supply Assessment (Appendix I) the Base Plan would have a total water demand of approximately 1,041-acre feet per year (afy) (804-afy potable and 238 non-potable). Sufficient potable water would be made available as a result of the City of Pleasanton’s recycled water program that will reduce use of potable water by shifting to recycled water for irrigation in locations outside of the Plan Area. Onsite facilities would consist of a network of potable and recycled water conveyance infrastructure (Exhibit 2-5 and Exhibit 2-6). Recycled water services would initially be provided by the Livermore Water Reclamation Plant until the City of Pleasanton’s recycled water infrastructure is extended east to the Plan Area.

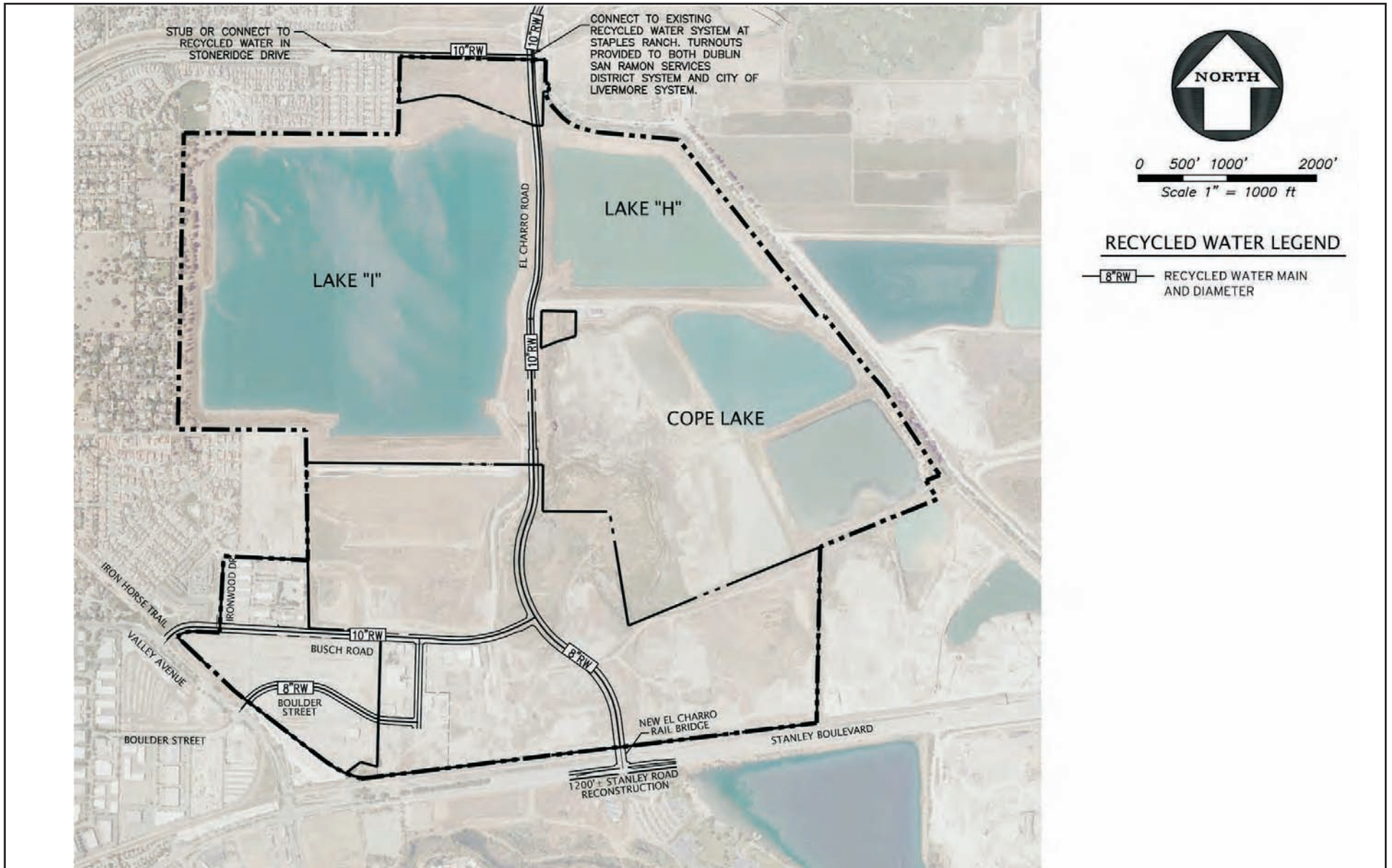


Source: Kier & Wright, 2015.



## Exhibit 2-5 Proposed Potable Water Infrastructure

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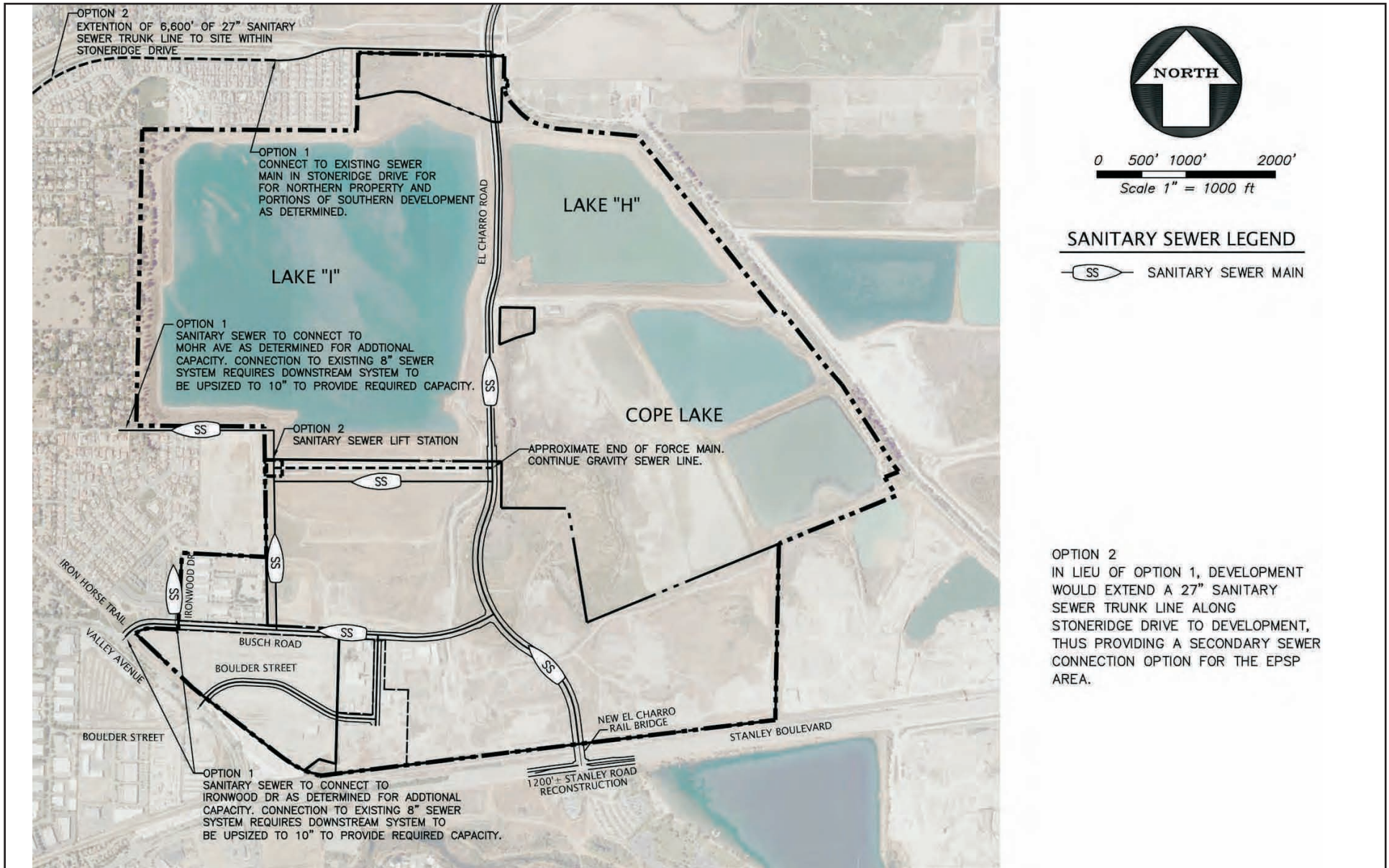


Source: Kier & Wright, 2015.



## Exhibit 2-6 Proposed Recycled Water Infrastructure

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Source: Kier & Wright, 2015.



## Exhibit 2-7 Proposed Wastewater Infrastructure

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Implementation of the Specific Plan would result in an estimated wastewater generation of approximately 580 afy or 517,791 gallons per day, based on a standard industry assumption that wastewater generation is estimated to represent 90 percent of water consumption. Sanitary sewer (wastewater) services would be conveyed offsite via a network of underground sewer mains (Exhibit 2-7).

Similarly, stormwater drainage would be conveyed to existing drainage facilities via onsite stormwater drainage infrastructure (Exhibit 2-8). Development and land uses in the Specific Plan Area would be required to be consistent with the City of Pleasanton Stormwater Management and Discharge Control Ordinance. Each individual project within the Plan Area would be required to treat its stormwater runoff prior to entering the storm drain conveyance system and regional storm drainage detention basins, in compliance with local codes and NPDES (National Pollutant Discharge Elimination System) permit requirements.

### **Offsite Utility Development**

In addition to utility infrastructure constructed within the Plan boundaries, utility infrastructure construction would also be required outside the Plan boundaries to provide connection and sufficient downstream capacity. Exhibit 2-9 and Exhibit 2-10 illustrate the offsite utility infrastructure connection and expansion locations, consistent with Exhibit 2-5 through Exhibit 2-8.

The following offsite utility connections would occur:

- A 12-inch potable water line would be extended approximately 2,500 feet from El Charro Road to Stoneridge Drive south of Arroyo Mocho.
- A 10-inch recycled water line would connect to the existing recycled water line in El Charro Road and would extend approximately 2,500 from El Charro Road to Stoneridge Drive south of Arroyo Mocho.
- Wastewater lines would be extended approximately 1,600 feet from the project site below Lake I to Mohr Avenue, approximately 350 feet from Busch Road to Ironwood Drive, and approximately 2,500 feet from El Charro Road to Stoneridge Drive south of Arroyo Mocho to connect to existing lines. In addition, 865 feet of an existing 8-inch wastewater line in Kamp Drive, west of the Plan Area, would be upsized to 10-inches. This is the preferred option for offsite wastewater service to the Plan Area. Alternatively, a lift station would be installed onsite requiring a wastewater line extension/expansion of approximately 6,600 feet from El Charro Road to Stoneridge Drive south of Arroyo Mocho, continuing along the Stoneridge Drive right-of-way to its intersection with Kamp Drive.
- Potable and recycled water, as well as wastewater and stormwater infrastructure would connect to existing lines in Valley Avenue at the Busch Road and future Boulder Street intersections, as well as in Stanley Road at the future El Charro Road intersection.

## 2.5 - Project Objectives

The objectives of the Base Plan are to:

- Facilitate the logical, orderly, and planned development of the Plan Area through the use of a comprehensive planning document.
- Reflect the unique character of the Plan Area’s lakefront and habitat setting in the specific plan design.
- Maintain and enhance the community’s quality of life.
- Promote economic growth through new capital investment, the creation of new jobs, the development of new housing opportunities, and expansion of the tax base.
- Facilitate the redevelopment of the Plan Area from an industrial and mining area to a mix of residential, retail, campus office, industrial, parks, and open space/conservation uses.
- Provide sufficient modes of circulation within the Plan Area and connectivity to surrounding land uses.
- Facilitate the use of alternative modes of transportation through an enhanced circulation system, site planning, and design techniques.
- Minimize adverse impacts to sensitive uses through the use of site planning and design techniques.
- Protect existing habitat and special-status species within the Specific Plan Area.
- Reflect the lakefront and open space character of the site.

## 2.6 - Intended Uses of This Draft EIR

This Draft EIR is being prepared by the City of Pleasanton to assess the potential environmental impacts that may arise in connection with actions related to implementation of the Base Plan. Pursuant to CEQA Guidelines Section 15367, the City of Pleasanton is the lead agency for the project and has discretionary authority over the project and project approvals. The Draft EIR is intended to address all public infrastructure improvements and all future development that are within the parameters of the project.

### 2.6.1 - Discretionary and Ministerial Actions

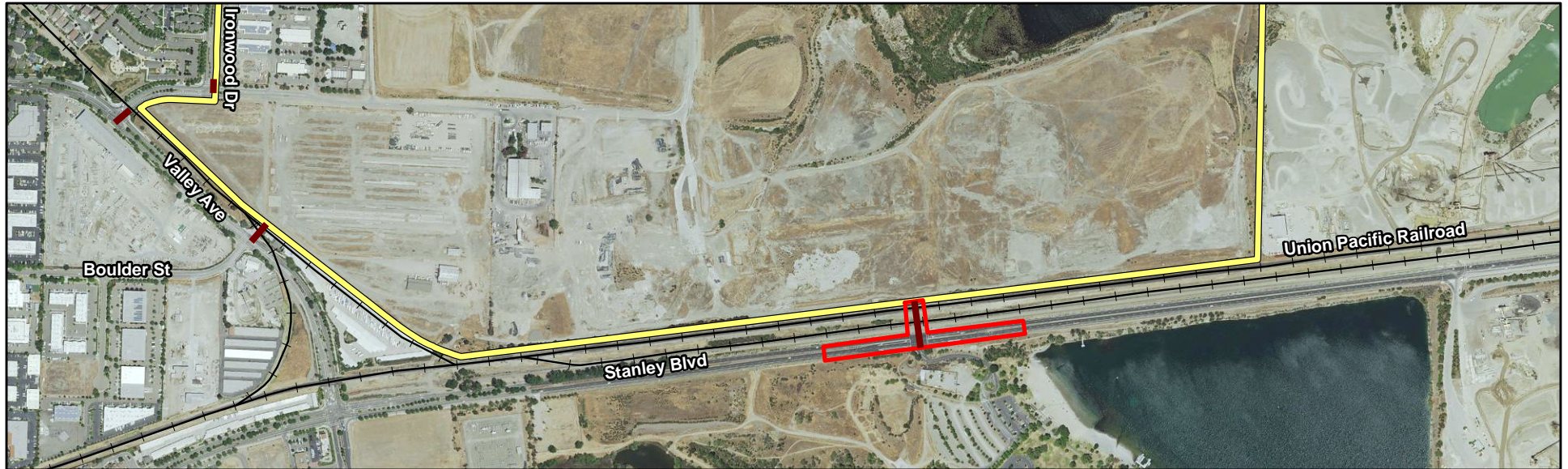
Discretionary approvals and permits are required by the City of Pleasanton for implementation of the Base Plan. Implementation of the Base Plan would require the following discretionary approvals and actions, including:

- Specific Plan Adoption – Planning Commission and City Council
- General Plan Amendment – Planning Commission and City Council

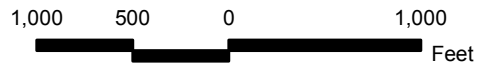
**CENTRAL AREA**



**SOUTHERN AREA**



Source: ESRI Aerial Imagery. City of Pleasanton.



**Exhibit 2-9  
Offsite Improvements**

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NORTHERN AREA



Source: ESRI Aerial Imagery. City of Pleasanton.



Exhibit 2-10  
Offsite Improvements (North)

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- Pleasanton Urban Growth Boundary line adjustment – City Council, Alameda Local Area Formation Commission, and possible public vote.
- Planned Unit Development (PUD) rezoning (and pre-zoning) – Planning Commission and City Council
- Annexation – City Council and Alameda Local Area Formation Commission.
- Development Agreement – Planning Commission and City Council

Future development and land use activities that occur pursuant to the Specific Plan may require discretionary approvals, such as but not limited to subdivisions, use permits, and design review; and ministerial approvals such as but not limited to demolition, grading, and building permits. This EIR intends to provide sufficient detail to provide coverage for development activities that are consistent with the Specific Plan, including but not limited to major and minor subdivisions, site plan reviews, and use permits.

### 2.6.2 - Responsible and Trustee Agencies

A number of other agencies in addition to the City of Pleasanton will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This Draft EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation. These agencies may include but are not limited to the following:

- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- California Department of Fish and Wildlife
- California Department of Transportation
- California Public Utilities Commission
- San Francisco Bay Area Regional Water Quality Control Board
- County of Alameda
- Alameda Local Agency Formation Commission
- Zone 7 Water Agency

Actions that are necessary to implement the Base Plan that must be taken by other agencies are:

- Annexation of Plan Area into the City of Pleasanton (Alameda LAFCo)
- Airport Land Use Consistency Determination (Alameda County)
- Obtain coverage under General Construction Stormwater Permit – State Water Resources Control Board/San Francisco Bay RWQCB.
- Issuance of Encroachment Permits for roadway, trail, or utility improvements within facilities under the jurisdiction of the California Department of Transportation (Caltrans), the County of Alameda, or the Zone 7 Water Agency.

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## SECTION 3: ENVIRONMENTAL IMPACT ANALYSIS

### Organization of Issue Areas

This Draft Environmental Impact Report (Draft EIR) provides analysis of impacts for those environmental topics where it was determined in the Notice of Preparation, or through subsequent analysis that the proposed project’s Base Plan would result in “potentially significant impacts.” Sections 3.1 through 3.15 discuss the environmental impacts that may result with approval and implementation of the proposed project.

### Issues Addressed in this EIR

The following environmental issues are addressed in Section 3:

- Aesthetics, Light, and Glare
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation/Traffic
- Utilities and Service Systems

Each environmental issue area in Sections 3.1 through 3.15 contains a description of:

1. The environmental setting as it relates to the specific issue
2. The regulatory framework governing that issue
3. The methodology used in identifying the issues
4. The significance criteria
5. An evaluation of the project-specific impacts and identification of mitigation measures
6. A determination of the level of significance after mitigation measures are implemented

### Level of Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers in approving a project to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed

using criteria from the CEQA Guidelines and checklist; state, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

## Impact Analysis and Mitigation Measure Format

The format adopted in this EIR to present the evaluation of impacts is described and illustrated below.

### Summary Heading of Impact

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**Impact AES-1:** An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact abbreviation identifies the section of the report (AES for Aesthetics, Light, and Glare in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.

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### Impact Analysis

A narrative analysis follows the impact statement.

### Level of Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

### Mitigation Measures

In some cases, following the impact discussion, reference is made to state and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are set off with a summary heading and described using the format presented below:

**MM AES-1a** Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact with which it is associated (**AES-1** in this example); the letter identifies the sequential order of that mitigation for that impact (**a** in this example).

### Level of Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Abbreviations used in the mitigation measure numbering provided in Table 3-1.

**Table 3-1: Environmental Issue Abbreviations**

Code	Environmental Issue
AES	Aesthetics, Light, and Glare
AIR	Air Quality
BIO	Biological Resources
CUL	Cultural Resources
GEO	Geology, Soils, and Seismicity
GHG	Greenhouse Gas Emissions
HAZ	Hazards and Hazardous Materials
HYD	Hydrology and Water Quality
LU	Land Use and Planning
MIN	Mineral Resources
NOI	Noise
POP	Population and Housing
PSR	Public Services and Recreation
TRANS	Transportation/Traffic
USS	Utilities and Service Systems

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## 3.1 - Aesthetics, Light, and Glare

### 3.1.1 - Introduction

This section describes the existing aesthetics, light, and glare setting and potential effects from the implementation of the Specific Plan within the Plan Area and its surroundings. Descriptions and analysis in this section are based on site reconnaissance by FirstCarbon Solutions (FCS) and design guidelines provided in the Specific Plan.

### 3.1.2 - Environmental Setting

#### Aesthetic Character

##### *Regional Setting*

The Plan Area is located within and adjacent to the eastern portion of the City of Pleasanton within the Amador Valley in the eastern San Francisco Bay Area. The Amador Valley is one of three valleys that make up the Tri-Valley area of the eastern Bay Area. The Tri-Valley, ringed by the Diablo Range, is a sheltered inland valley at an elevation of about 400 feet. Hills rise to heights of 1,500 feet, including the Pleasanton and Main Ridges to the west. To the northwest is the Las Trampas Ridge, which is also highly visible. To the valley's north lie the Black Hills and Mount Diablo. Hills to the south of the valley rise to approximately 3,000 to 3,500 feet. These prominent landforms define the high points in the landscape of the Tri-Valley area and provide a scenic backdrop for all development in the valley floor (City of Pleasanton 2009).

The City of Dublin is located directly to the north of Pleasanton, across Interstate 580 (I-580). The City of Livermore is located to the east, separated by lands used for mining, water storage, and the Livermore Municipal Airport.

##### *Local Setting*

Pleasanton is a suburban community of approximately 70,000 residents. Topography is relatively flat, sloping gently upwards in all directions toward the surrounding foothills. The generally undeveloped hillsides and ridge lines create an attractive backdrop and serve as a physical and visual separator from other nearby communities. The most noticeable visual feature is Mount Diablo. Rising to an elevation of 3,849 feet above sea level, Mount Diablo is a prominent landmark dominating the northern skyline (City of Pleasanton 2009).

##### *Plan Area*

The Plan Area encompasses 1,110 acres at the eastern-most edge of the City, situated partially within the city-limits but mostly within the unincorporated jurisdiction of Alameda County. The Plan Area consists of three man-made lakes, reclaimed quarry land covered with brush and non-native grasses, and limited development to the north and south of Busch Road in the southwest quadrant.

Much of the Plan Area enjoys sweeping views in all directions. Hills rising to a height of 1,000 to 1,500 feet can be seen to the west and east. Mount Diablo is visibly prominent to the north, along with the Blackhawk Hills that form part of the Diablo Range. The Pleasanton Southeast Hills and southern ridgelines rise up to more than 3,000 feet. These prominent landforms will provide a

scenic backdrop for development within the Plan Area. Exhibit 3.1-1 indicates the location of photographs taken within the Plan Area; Exhibit 3.1-2 and Exhibit 3.1-3 contain photographs of relevant features and characteristics of the Plan Area and surroundings.

Specific areas of the EPSP area are described in detail in Section 2, Project Description. A summary of the EPSP area is provided here.

#### *Zone 7 Water Agency*

Within the Plan Area, the Zone 7 Water Agency lands consist of 588.5 acres encompassing Lake I and Cope Lake and the banks surrounding them. Lake H is presently owned by the Pleasanton Gravel Company (PGC) but is scheduled to be dedicated to Zone 7 in 2017. Lands owned and operated by Zone 7 are considered Alameda County property and are not subject to the City of Pleasanton zoning regulations related to land use (City of Pleasanton 2012b).

#### *Legacy/Lionstone Group*

The Legacy/Lionstone Group property consists of 330 acres within the southern portion of the Plan Area that straddles the Pleasanton city limits. Existing land uses include disturbed undeveloped land, ruderal vegetation, concrete structures and pads, a storage shed, aggregate piles, and debris piles.

#### *City of Pleasanton's Operations Service Center*

The City of Pleasanton's Operations Service Center consists of 18 acres on the north side of Busch Road within the city-limits. This site is developed with a series of corporation yard type uses including office space, storage yards, facility maintenance related equipment and materials, and fire department training facility.

#### *Pleasanton Transfer Station and Recycling Center*

The Pleasanton Transfer Station and Recycling Center consists of 7.7 acres on the south side of Busch Road in the southern portion of the Plan Area, east of the Kiewit property. The site contains a large warehouse where refuse is sorted, exterior sorting areas, vehicle parking areas, debris piles, other industrial buildings, scale and scale house, and an office building.

#### *Pleasanton Gravel Company*

The PGC lands include 115.5 acres in the northeastern portion of the Plan Area, which contains Lake H, a former surface mining pit. PGC currently owns Lake H, but it is scheduled to be dedicated to the Zone 7 Water Agency in 2017.

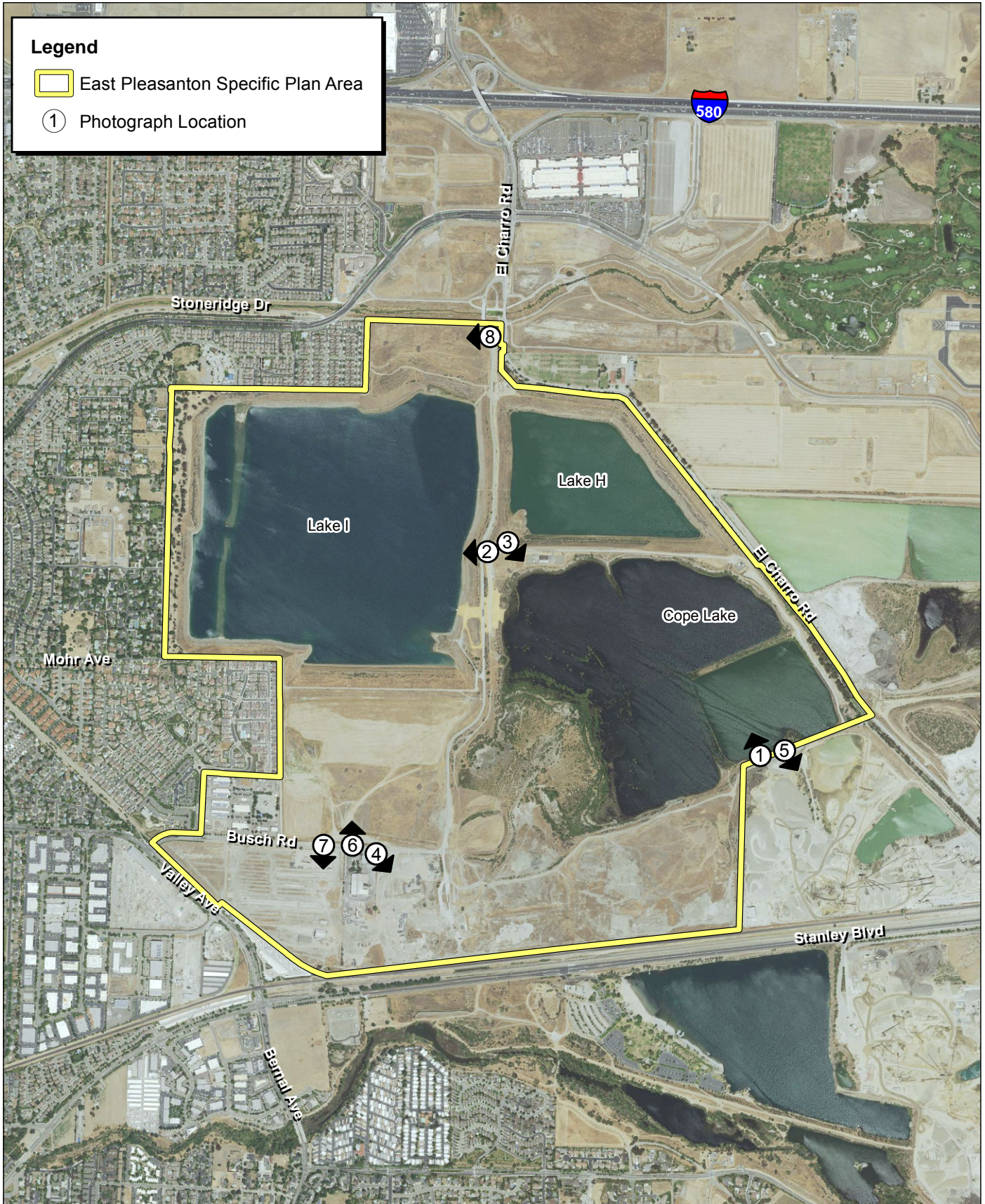
#### *Kiewit Infrastructure Company*

The Kiewit property consists of 50.4 acres located on the south side of Busch Road within the city-limits at the southwestern corner of the Plan Area. It contains three storage/office buildings. The remainder of the site is vacant and consists of ruderal vegetation and large areas of concrete pads. High voltage lines extend within the property's southwest border adjacent to the Valley Avenue frontage.

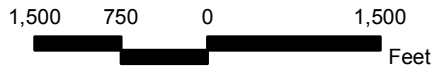
### ***Surrounding Land Uses and Views***

Land uses surrounding the EPSP area are described in detail in Section 2, Project Description. A summary of surrounding land uses and views is provided here.





Source: ESRI Imagery



### Exhibit 3.1-1 Photograph Key

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Photograph 1: Looking north from south of Cope Lake.



Photograph 2: Looking west across Lake I.



Photograph 3: Pump station adjacent to Lake H.



Photograph 4: Former storage sheds before Busch Gate.

Source: FirstCarbon Solutions 2012



## Exhibit 3.1-2 Photographs of Project Site and Surroundings

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Photograph 5: Looking southeast towards adjacent mining operations.



Photograph 6: Looking north from Busch Road towards Mt. Diablo.



Photograph 7: Looking south from Busch Road towards Stanley Boulevard.



Photograph 8: Looking west towards Pleasanton Ridge.

Source: FirstCarbon Solutions 2012



## Exhibit 3.1-3 Photographs of Project Site and Surroundings

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#### *North*

The northern edge of the Plan Area is bordered by Amaral Park, Mohr Elementary School, single-family housing, Arroyo Mocho Canal, open space, agricultural land, the Livermore Municipal Airport, and a recently constructed continuing care facility. A 17-acre community park is planned along the north side of Arroyo Mocho Canal, as well as a 5-acre neighborhood park, commercial uses, and an auto mall south of Interstate 580 (I-580). East of El Charro Road is the San Francisco Premium Outlets, open space, Livermore Golf Course, Livermore Airport, and stormwater detention facilities. Views beyond these land uses are of the Blackhawk Hills and Mount Diablo.

#### *East*

A quarry plant owned and operated by Vulcan Materials is located to the immediate east of the Plan Area. Surface mining activities dominate the eastern boundary of the Plan Area.

#### *South*

The Union Pacific Railroad tracks and Stanley Boulevard form the southern boundary of the Plan Area south of Stanley Boulevard are multiple land uses, including more surface mining activities, an electrical substation, a BMX park, and Shadow Cliffs Regional Recreation Area.

#### *West*

The western edge of the Plan Area is bordered by Valley Avenue and a variety of land uses, including warehousing and other industrial uses, a self-storage facility, Centerpointe Presbyterian Church, single-family housing, Ironwood Active Adult Community, and the Martin Avenue residential neighborhood. Historic Downtown Pleasanton is 1.5 miles west of the project site.

### **Designated Resources**

The Pleasanton General Plan designates arroyos, woodlands, valleys, grazing lands, major city entryways, open space at the City's edges, and open space areas as visual resources to be protected and enhanced. In addition, the Pleasanton General Plan requires the preservation of scenic hillside and ridge views.

### **State Scenic Highways**

I-680, located approximately 2.75 miles to the west is an "officially designated" State Scenic Highway between State Route 24 in Walnut Creek (north of the Plan Area) and Mission Boulevard in Fremont (south of the Plan Area). Views of surrounding ridgelines and hillsides are visible from I-680. However, the Plan Area is not visible from I-680.

I-580, located approximately 0.5 mile to the north is an "eligible" State Scenic Highway between San Leandro (west of the Plan Area) to the Alameda County/San Joaquin County Line (east of the Plan Area). Near the project site, I-580 provides foreground views of landscaping, urban development, and undeveloped land. Background views include hillsides, ridgelines, and urban uses. Views of the Plan Area from I-580 are limited as a result of distance and intervening development; however, multiple story buildings may be partially visible if developed.

## Light and Glare

Existing development within the Plan Area, including the City of Pleasanton Operations and Service Center and the Pleasanton Transfer Station and Recycling Center, contain numerous sources of light and glare such as streetlights, freestanding lights, building-mounted lights, reflective building materials, and vehicular headlights. Areas to the west and northwest of the Plan Area are more densely developed and contain greater amounts of light and glare. Areas to the northeast, east, and south contain less urban development and, therefore, fewer sources of light and glare. The Livermore Municipal Airport is located to the northeast of the Plan Area and contains lighting required for the safe operation of the Airport. In addition, the Vulcan Materials quarry plant is located directly to the southeast of the Plan Area, and employs lighting for security and nighttime operations.

### 3.1.3 - Regulatory Framework

#### State

##### ***California Scenic Highway Program***

The California Scenic Highway Program is intended to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of highway lands. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. A scenic corridor is the land generally adjacent to and visible from the highway and is identified using a motorist's line of vision. The corridor protection program seeks to encourage quality development that does not degrade the scenic value of the corridor. Minimum requirements for scenic corridor protection include:

- Regulation of land use and density of development
- Detailed land and site planning
- Control of outdoor advertising (including a ban on billboards)
- Careful attention to and control of earthmoving and landscaping
- Careful attention to design and appearance of structures and equipment

#### Local

##### ***City of Pleasanton***

###### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs related to scenic vistas, visual character, and light and glare:

###### **Land Use Element**

- **Policy 19:** Preserve designated open space areas for the protection of public health and safety, the provision of recreational opportunities, agriculture and grazing, the production of natural resources, the preservation of wildlands, water management and recreation, and the physical separation of Pleasanton from neighboring communities.



- **Program 19.1:** Preserve open space by way of fee purchase, developer dedications, conservation and scenic easements, transfer of development rights, Williamson Act contracts, open-space zoning categories, and other means which may become available.

#### Conservation and Open Space Element

- **Policy 6:** Protect all large continuous areas of open space, as designated on the General Plan Map, from intrusion by urban development.
  - **Program 6.3:** Preserve large blocks of open space land by encouraging the clustering of development.
  - **Program 6.4:** Investigate methods and pursue opportunities to retain areas designated on the General Plan Map as Open Space for permanent open-space use through acquisition, conservation easements, establishment of land trusts, etc.
  - **Program 6.5:** Encourage developers to publicly dedicate fee title to open space lands: (1) that are determined to have considerable public recreational, scenic, or natural resource value; (2) where operational costs can be met; and (3) where significant potential health or safety hazards do not exist. Developers should offer public access to the fullest extent possible.
- **Policy 7:** Preserve and expand open-space opportunities, including open-space access to the public.
- **Policy 8:** Preserve as permanent open space all areas of outstanding scenic qualities or areas which provide extraordinary views of natural and human-made objects.

#### Community Character Element

- **Policy 5:** Encourage commercial development with frontages on arroyos and canals to orient outside activity areas, decks, and views to the arroyos and canals.
  - **Program 5.1:** When property owners apply for site changes, provide suggestions for additional integration of uses with the arroyos and canals.
- **Policy 6:** Enhance the visual appearance and natural condition of the arroyos.
  - **Program 6.1:** Improve the appearance of bridges over the arroyos with new railings, landscaping, lighting, signage, and other design techniques.
  - **Program 6.3:** Work with Zone 7 to improve landscaping along the arroyos and canals, to minimize fencing where appropriate, and to provide aesthetically pleasing arroyo and canal fence designs when fencing is necessary.
- **Policy 7:** Improve the visual quality of entryways to Pleasanton.
  - **Program 7.1:** As part of the design review process, encourage the installation of distinctive landscaping, and discourage advertising signage and bright franchise colors at major street entryways to the City.
  - **Program 7.2:** The City should be particularly sensitive to aesthetic considerations when land-use planning in areas adjacent to City entryways.
- **Policy 8:** Continue to maintain a visual separation between Pleasanton and Livermore along Stanley Boulevard.
  - **Program 8.1:** As part of the East Pleasanton Specific Plan, require architectural and/or site design treatments, such as larger setbacks, and dense landscaping, to maintain the visual separation between the eastern edge of Pleasanton and western edge of Livermore.

- **Program 8.2:** Continue to support the Chain of Lakes concept as a buffer between the two cities.
- **Policy 9:** Enhance landscaping along city streets and the freeways.
  - **Program 9.5:** In new developments, require developers, owners associations, or maintenance associations to maintain landscaped medians.
- **Policy 15:** Encourage new commercial area development and redevelopment, including stand-alone retail buildings, restaurants, and hotels, to incorporate attractive architectural and site-design features.
  - **Program 15.3:** Require developers to include the following features, as feasible, in the development of new and the redevelopment of existing commercial areas:
    - Pedestrian amenities such as landscaping, benches, trellises, fountains, public art, and attractive lighting
    - Pedestrian walkways and bikeway connections that create safe paths of travel through the shopping center and parking, and to transit, nearby sidewalks, and surrounding residential neighborhoods
    - Attractive sign design and higher quality sign materials
    - Outdoor seating, shade structures, and drinking fountains
    - Decorative paving at driveway entrances and pedestrian areas
    - Attractive colors, minimizing bright franchise colors
    - Higher quality facade materials
    - Orientation of buildings to transit facilities, where applicable
    - Orientation of the businesses to adjacent creeks, where applicable
    - Shared parking
    - Attractive and convenient bicycle parking.

#### Subregional Planning Element

- **Policy 13:** Enhance community identity through the protection of community separators, scenic hillsides, and ridgelines.
  - **Program 13.1:** Encourage the preservation of a contiguous Tri-Valley open-space system through land-use policies, and land dedication/acquisition and conservation easements, using the Tri-Valley Conservancy and other entities.

#### Municipal Code

Chapter 17.16 of the Pleasanton Municipal Code regulates the removal and preservation of Heritage trees within the City. Any removal of Heritage trees is required to go through city staff review and the development review process.

Chapter 18.28 of the Municipal Code prevents a process or use of equipment or materials that produce illumination or glare, which is found to be objectionable to persons residing or working in the vicinity.

Chapter 18.48 of the Municipal Code prevents any use, except for temporary construction operation, which would create changes in temperature or direct or sky reflected glare, detectable by human

senses without the aid of instruments beyond the boundaries of the site. It also establishes restrictions on exterior and interior illumination in relation to a site's boundaries.

Chapter 18.88 of the Municipal Code provides regulations for street parking facilities, which includes deflecting parking area illumination, and directing lighting away from residential sites in order to avoid annoying glare.

Chapter 18.96 of the Municipal Code regulates the location, height, size, and illumination of signs in order to maintain the attractiveness and orderliness of the City's appearance, to protect business sites from loss of prominence resulting from excessive signs on surrounding sites, and to protect the public safety and welfare.

### 3.1.4 - Methodology

FCS evaluated potential project impacts on aesthetics, light, and glare through site reconnaissance and review of applicable plans and policies. FCS personnel visited the project site and surrounding area to document the site conditions through photographs and notation. The Pleasanton General Plan and the proposed East Pleasanton Specific Plan were reviewed for applicable policies and design requirements. The assessment of visual, light, and glare impacts was largely guided by the standards set forth in the City's adopted documents, as well as FCS's experience with these analytical areas.

### Viewer Exposure and Sensitivity

Viewer sensitivity is considered in assessing the impacts of visual change and is a function of several factors. The sensitivity of the viewer, or viewer concern, is based on the visibility of resources in the landscape; proximity of the viewers to the visual resource; elevation of the viewer's relative to the visual resource; and frequency and duration of views, numbers of viewers, and types and expectations of individuals and viewer groups.

The viewer's distance from landscape elements plays an important role in the determination of an area's visual quality. Visibility and visual dominance of landscape elements depend on their placement within a viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail) (Federal Highway Administration 1988). Landscape elements are considered higher or lower in visual importance based on their proximity to the viewer. Generally, the closer a resource is to the viewer, the more dominant, and thus the more visually important it is to the viewer. For purposes of analysis, landscapes are separated into foreground, middleground, and background views (U.S. Forest Service 1995). In general, the foreground is characterized by clear details (within 0.25 or 0.50 mile of the viewer); the middleground is characterized by the loss of clear detail in a landscape, creating a uniform appearance (from the foreground to 3 to 5 miles in the distance), and the background extends from the middleground to the limit of human sight (Bacon 1979).

Visual sensitivity is also affected by viewer activity, awareness, and expectations in combination with the number of viewers and the duration of the view. Visual sensitivity is generally higher for views that are observed by people who are driving for pleasure, or engaging in recreation activities such as hiking, biking, camping or by residents of an area. Sensitivity is lower for people engaged in work

activities or commuting to work. Viewer response must be based on regional context. The same landform or landscape feature may be valued differently in different settings; landscape features common in one area would not be valued as highly as the same feature in a landscape that generally lacks similar features. For example, a small hill may have little value in a mountainous area, but may be highly valued in a landscape that has little topographic variation.

### Thresholds of Significance

According to Appendix G, Environmental Checklist of the CEQA Guidelines, aesthetics impacts resulting from the implementation of the Base Plan would be considered significant if the project would:

- a) Have a substantial adverse effect on a scenic vista.
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (Refer to Section 7, Effects Found Not To Be Significant.)
- c) Substantially degrade the existing visual character or quality of the site and its surroundings.
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

### 3.1.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Scenic Vista

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**Impact AES-1: Development and land use activities contemplated by the Specific Plan would not have a substantial adverse effect on a scenic vista.**

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#### Impact Analysis

The Specific Plan identifies potential new development and redevelopment of properties to accommodate up to 1,300 residential units, 91,000 square feet of retail, 442,000 square feet of office, and 1,057,000 square feet of industrial uses, with associated parks and open space uses inclusive of the man-made lakes and surrounding lands; refer to Table 2-2 in Section 2, Project Description. Development of individual sites would vary in intensity and height based upon the targeted use and location within the plan area. The Specific Plan would include associated infrastructure improvements and public facility needs, as well as transportation and circulation network improvements.

A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. The Pleasanton General Plan recognizes arroyos, ridge views, hillsides woodlands, valleys, grazing lands, major city entryways, and open space areas as scenic resources.

Past mining and industrial activities have significantly altered the natural landscape within the Specific Plan boundaries. As a result, much of the southern portion of the Plan Area consists of undeveloped, disturbed lands covered by ruderal vegetation. However, the three man-made lakes and adjacent habitat within the Specific Plan boundaries are considered scenic resources. The lakes and adjacent habitat would be maintained as part of the development of the Specific Plan, thereby preserving existing scenic resources within the Specific Plan boundaries. As indicated by the Specific Plan, a guiding principle for the future character of development has evolved from “. . . the existing open space setting. Development is to orient toward the lakes and take advantage of the lake environment. Scenic lake views are to be protected and the lake area is to serve as a visual separator between Pleasanton and Livermore.” Furthermore, the Specific Plan recognizes the strong visual character the existing lakes and outlying hill areas establish.

Scenic resources visible from the Plan Area include hillsides, ridgelines, and open spaces. To the north, scenic resources include background views of the Blackhawk Hills, part of the Diablo Range, and Mount Diablo. To the east, scenic resources include open spaces. To the south, scenic resources include Shadow Cliffs Regional Recreation Area, which consists of an 80-acre lake, water slide park, parking lots, open space area, and an arroyo with a small chain of ponds. To the west, scenic resources include background views of wooded hillsides and ridgelines. These scenic resources are primarily part of background views seen at a distance.

Development and land use activities may result in buildings and structures that could interrupt scenic vistas from within and adjacent to the Plan Area. However, such interruptions would be intermittent and the majority of the Plan Area would be maintained as open space. Furthermore, development and land use activities in the Plan Area would be required to adhere to the Specific Plan design guidelines, including an overall building height limitation of three stories, ensuring that buildings are consistent with existing urban development in Pleasanton and minimizing the interruption of background views of scenic resources. Design features for development of all uses would complement the adjacent properties and draw on their surroundings to ensure compatibility. Special emphasis would be placed on setbacks, building height, massing and scale, landscape treatments, architectural design, and color palettes to ensure compatibility. Furthermore, the substantial portions of the Plan Area to be maintained as open space would continue to provide visual corridors to surrounding scenic vistas. As such, impacts would be less than significant.

***Level of Significance Before Mitigation***

Less than significant impact.

***Mitigation Measures***

No mitigation is necessary.

***Level of Significance After Mitigation***

Less than significant impact.

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## Visual Character

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**Impact AES-2: Development and land use activities contemplated by the Specific Plan would not degrade the visual character of the Plan Area or its surroundings.**

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### *Impact Analysis*

The Specific Plan boundaries would facilitate construction of retail, residential, office, and industrial land uses on land previously used for mining and industrial purposes. Open Space land uses such as the lakes would be maintained. Buildout of the Specific Plan would fundamentally alter the visual character of the Plan Area, although this change in itself is not considered significant unless the quality of viewscape is substantially diminished.

This impact analysis will assess the Base Plan's potential visual character impacts in several ways, including assessment of the existing visual conditions, visual compatibility of surrounding uses, and evaluation of the proposed Specific Plan's development standards and design guidelines for land use and development. Each subject will be discussed separately.

### *Existing Visual Conditions*

The Plan Area includes three lakes (former sand and gravel pits) and surrounding lands totaling approximately 704 acres. The remaining 406 acres of the Plan Area consist of mostly flat, reclaimed land formerly used for aggregate mining or currently used for the Pleasanton Operations Service Center and Pleasanton Transfer Station and Recycling Center.

### *Development Standards and Design Guidelines*

As indicated in Chapter 5 of the Specific Plan, land use standards and design guidelines would be required of all developments within the Plan Area. The design guidelines are to be applied to development in conjunction with the development standards listed in the Pleasanton Municipal Code.

Planning for the future character of the Plan Area acknowledges the value of the existing scenic resources—the lakes, natural habitat, and outlying rural lands and hillsides. Scenic lake views are to be protected, and the lake area would continue to provide a visual separator between Pleasanton and Livermore. Future development would be oriented toward the lakes and would take advantage of the lake environment.

Design features for development of all uses would complement the adjacent properties and draw on their surroundings to ensure compatibility. Special emphasis would be placed on setbacks, building height, massing and scale, landscape treatments, architectural design, and color palettes to ensure compatibility. Design characteristics (including massing, height, parking ratios and standards, lot layout and setbacks, screening, and landscape requirements) are outlined in the Specific Plan for each land use type, and future development would be required to implement these design standards. As part of the Planned Unit Development (PUD) application process, proposed development site plans would be reviewed for consistency and compatibility with the Specific Plan design guidelines.

In summary, the Specific Plan sets forth comprehensive development standards and design guidelines that would ensure that new development and land use activities provide contemporary

design that is visually compatible with the Specific Plan’s vision for the project site and surrounding land uses.

*Visual Compatibility with Surrounding Land Uses*

Planned land uses would contain residential, retail, industrial, and open space land uses that would be similar in design and intensity to surrounding uses. Development would be focused in the southwestern portion of the Plan Area, with the exceptions of the Campus Office Land Use located along the northern boundary, and the Destination Use located along El Charro Road in the central part of the Plan Area. Open Space land uses, such as the lakes and adjacent wildlife habitat areas, would be maintained as a part of the Base Plan.

Proposed land uses would generally be located adjacent to existing compatible land uses, maintaining the existing visual character, with the exception of residential land uses proposed adjacent to the Pleasanton Operations Service Center (OSC) and potentially the Pleasanton Transfer Station and Recycling Center.

Future residential development along the eastern boundary of the OSC would be screened by the construction of a local street that extends the full length of the OSC’s eastern property line and would include a landscape buffer to screen views of the OSC from the proposed residences. Similarly, local streets and landscaping buffers would fully surround the Pleasanton Transfer Station and Recycling Center.

The Specific Plan’s design guidelines for each land use type would ensure that future development is consistent with existing and surrounding land uses. The Specific Plan would ensure consistency with the surrounding land use in terms of end uses and design characteristics and, therefore, would be visually compatible.

*Conclusion*

Overall, the Plan Area and surrounding vicinity contain a wide range of land uses. Although the buildout of the Specific Plan would result in significant visual change to the Plan Area, the development and land use activities contemplated by the Specific Plan would be required to implement design standards and guidelines of the Specific Plan as part of the PUD review process to ensure visual compatibility with surrounding land uses. As such, impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

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## Light and Glare

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**Impact AES-3: Development and land use activities contemplated by the Specific Plan would not create new sources of light and glare that may adversely affect views.**

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### ***Impact Analysis***

Examples of light and glare include streetlights, freestanding lights, building-mounted lights, reflective building materials, and vehicular headlights. Currently, developed portions of the Plan Area contain numerous existing sources of light and glare related to the Pleasanton Operations Service Center and the Pleasanton Transfer Station and Recycling Center. Areas to the north, west, and south of the Plan Area are more fully developed and contain greater amounts of existing light and glare. The Livermore Municipal Airport utilizes lighting to ensure safe operations. In addition, the Vulcan Materials quarry plant utilizes lighting for security and nighttime operations.

At buildout, the Specific Plan area would include urban land uses and associated sources of light and glare. Existing open space land uses, such as the lakes and adjacent habitat, would be maintained and would not include significant new sources of light or glare. Development would be focused in the southern portion of the Plan Area, with the exceptions of the Campus Office land use located along the northern boundary, and the Destination Use located along El Charro Road. Commercial and industrial land uses would include lighting in parking lots, along pathways, and mounted on buildings for safety and security. Residential exterior light sources would include low-intensity lighting associated with walkways, streets, patios, and parking areas. As such, the Base Plan may create a substantial source of nighttime light, which may affect nighttime views in the surrounding area, particularly in the southern portion of the Plan Area where proposed development would be adjacent to existing development.

Chapter 5 of the Specific Plan includes land use standards and design guidelines that would help minimize potential impacts of light and glare through the angling of exterior light sources downward and placement of landscaping to shield light and glare from surrounding areas. Section 18.20.030 of the Pleasanton Municipal Code states that Design Review includes the “relationship of exterior lighting to its surroundings and to the building and adjoining landscape.” As such, lighting and glare would be addressed as part of the Design Review process for each project within the Specific Plan boundaries.

In summary, implementation of the Design Guidelines and Municipal Code regulations regarding light and glare would ensure that development in the Plan Area would not introduce substantial sources of light and glare to the project vicinity. Impacts would be less than significant.

### ***Level of Significance Before Mitigation***

Less than significant impact.

### ***Mitigation Measures***

No mitigation is necessary.

### ***Level of Significance After Mitigation***

Less than significant impact.



## 3.2 - Air Quality

### 3.2.1 - Introduction

This section addresses the potential impacts to regional and local air quality associated with implementation of the Specific Plan within the Plan Area and its surroundings. Plan-level air quality impacts were evaluated for short-term construction and long-term operational emissions of the Base Plan. FirstCarbon Solutions performed air quality and greenhouse gas analyses for the Specific Plan, which includes qualitative assessment of plan compliance, and vehicle miles traveled (VMT) modeling. The analysis files, including modeling outputs, are provided in Appendix B.

### 3.2.2 - Environmental Setting

#### Air Basin

The Plan Area is located in the City of Pleasanton and Alameda County, within the San Francisco Bay Area Air Basin (Air Basin). The Air Basin is approximately 5,600 square miles in area, consisting of nine counties that surround the San Francisco Bay, including all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa counties; the southwestern portion of Solano County; and the southern portion of Sonoma County. Its terrain and geographical location determine the distinctive climate of the Air Basin, as the Basin is a coastal plain with connecting valleys and low hills. The local agency with jurisdiction over air quality in the Basin is the Bay Area Air Quality Management District (BAAQMD).

#### Air Pollutants

For reasons described below in the Regulatory Framework section, the criteria pollutants of greatest concern for the project area are ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. PM is particulate matter in the air that includes a mixture of solids and liquid droplets. Some particles are emitted directly; others are formed in the atmosphere when other pollutants react. PM is so small that it can get into the lungs, potentially causing serious health problems. PM<sub>10</sub> is 10 microns in diameter, smaller than the width of a human hair. PM<sub>2.5</sub> is 2.5 microns in diameter and consists of “fine” particles. These fine particles are so small they can be detected only with an electron microscope. Sources of fine particles include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

Carbon monoxide is of less concern in the Air Basin because it is classified as an attainment area. Table 3.2-1 summarizes the most relevant effects from exposure, the properties, and the sources of the pollutants. Also shown are national and California ambient air quality standards.

#### Toxic Air Contaminants

In addition to the criteria pollutants, discussed below, toxic air contaminants (TACs), also known as hazardous air pollutants (HAPs), are another group of pollutants of concern. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. In general, for those TACs that may cause cancer all concentrations present some

level of risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

According to the California Almanac of Emissions and Air Quality, the majority of the estimated health risk from TACs for the State of California can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM) from diesel-fueled engines. Because the Specific Plan would result in demolition activity for existing structures, asbestos is a TAC of concern and is discussed below.

#### *Diesel Particulate Matter*

The California Air Resources Board (ARB) identified PM emissions from diesel-fueled engines as a TAC in August 1998 under California's TAC program. The State of California, after a 10-year research program, determined in 1998 that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic (long-term) health risk. The California Office of Environmental Health Hazard Assessment (OEHHA) recommends using a 70-year exposure duration for determining residential cancer risks. DPM is emitted from both mobile and stationary sources. According to ARB's 2009 Almanac, on-road diesel-fueled vehicles contribute approximately 38 percent of the statewide total inventory, with an additional 60 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. The remaining DPM inventory was generated by stationary point sources and aggregated stationary sources.

#### *Asbestos*

Asbestos is listed as a TAC by ARB and as a HAP by the U. S. Environmental Protection Agency (EPA). Asbestos is a fibrous mineral which is both naturally occurring in ultramafic rock (a rock type commonly found in California), and used as a processed component of building materials. Crushing or breaking rocks containing naturally occurring asbestos, through construction or other means, can release asbestos from fibers into the air. Asbestos emissions can also result from the sale, use, or demolition of asbestos-containing materials, including demolition of buildings. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and, with time, may be linked to such diseases as asbestosis, lung cancer, and mesothelioma.

According to the California Division of Mines and Geology, naturally occurring asbestos has been found in scattered locations within the Alameda County; however, the nearest known location of naturally occurring asbestos is farther than 1 mile from the Plan Area. Based on the age of buildings within the Plan Area, asbestos-containing material may be present. The disturbance of these structures for future development could release hazardous materials during construction activities, which could pose a risk to human health and the environment.

**Table 3.2-1: Description of Air Pollutants**

Air Pollutant	Averaging Time	California Standard	Federal Standard <sup>a</sup>	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), nitrous oxides (NO <sub>x</sub> ), and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO <sub>x</sub> ) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hour	0.070 ppm	0.075 ppm			
Carbon monoxide (CO)	1 Hour	20 ppm	35 ppm	Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.
	8 Hour	9.0 ppm	9 ppm			
Nitrogen dioxide <sup>b</sup> (NO <sub>2</sub> )	1 Hour	0.18 ppm	0.100 ppm	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contributions to atmospheric discoloration' increased visits to hospital for respiratory illnesses.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO <sub>x</sub> (NO, NO <sub>2</sub> , NO <sub>3</sub> , N <sub>2</sub> O, N <sub>2</sub> O <sub>3</sub> , N <sub>2</sub> O <sub>4</sub> , and N <sub>2</sub> O <sub>5</sub> ). NO <sub>x</sub> is a precursor to ozone, PM <sub>10</sub> , and PM <sub>2.5</sub> formation. NO <sub>x</sub> can react with compounds to form nitric acid and related small particles and result in PM related health effects.	NO <sub>x</sub> is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide forms quickly from NO <sub>x</sub> emissions. NO <sub>2</sub> concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

**Table 3.2-1 (cont.): Description of Air Pollutants**

Air Pollutant	Averaging Time	California Standard	Federal Standard <sup>a</sup>	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfur dioxide <sup>c</sup> (SO <sub>2</sub> )	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SOX) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM <sub>10</sub> .	Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	3 Hour	—	0.5 ppm			
	24 Hour	0.04 ppm	0.14 (for certain areas)			
	Annual	—	0.030 ppm (for certain areas)			
Particulate matter (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	<ul style="list-style-type: none"> <li>- Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias.</li> <li>- Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death.</li> </ul>	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM <sub>10</sub> refers to particulate matter that is between 2.5 and 10 microns in diameter, (one micron is one-millionth of a meter). PM <sub>2.5</sub> refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.
	Mean	20 µg/m <sup>3</sup>	—			
Particulate matter (PM <sub>2.5</sub> )	24 Hour	—	35 µg/m <sup>3</sup>			
	Annual	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>			
Visibility-reducing particles	8 Hour	See note below <sup>d</sup>				

**Table 3.2-1 (cont.): Description of Air Pollutants**

Air Pollutant	Averaging Time	California Standard	Federal Standard <sup>a</sup>	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfates	24 Hour	25 µg/m <sup>3</sup>	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO <sub>4</sub> <sup>2-</sup> . Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead <sup>e</sup>	30-day	1.5 µg/m <sup>3</sup>	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982.	Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m <sup>3</sup>			
	Rolling 3-month average	—	0.15 µg/m <sup>3</sup>			
Vinyl chloride <sup>e</sup>	24 Hour	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide	1 Hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H <sub>2</sub> S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).

**Table 3.2-1 (cont.): Description of Air Pollutants**

Air Pollutant	Averaging Time	California Standard	Federal Standard <sup>a</sup>	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Volatile organic compounds (VOC)		There are no State or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM <sub>10</sub> and lower visibility.
Benzene		There are no ambient air quality standards for benzene.		Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer.	Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a “Group A” carcinogen.	Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at one to two percent by volume. The primary route of human exposure is through inhalation.
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering	Diesel PM is a source of PM <sub>2.5</sub> —diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles

**Table 3.2-1 (cont.): Description of Air Pollutants**

Air Pollutant	Averaging Time	California Standard	Federal Standard <sup>a</sup>	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.	such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.
<p>Notes:</p> <p>ppm = parts per million (concentration)      <math>\mu\text{g}/\text{m}^3</math> = micrograms per cubic meter      Annual = Annual Arithmetic Mean      30-day = 30-day average      Quarter = Calendar quarter</p> <p><sup>a</sup> Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3-Hour SO<sub>2</sub>, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.</p> <p><sup>b</sup> To attain the 1-hour nitrogen dioxide national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (0.100 ppm).</p> <p><sup>c</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.</p> <p><sup>d</sup> Visibility-reducing particles: In 1989, ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.</p> <p><sup>e</sup> ARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.</p> <p>Source of effects, properties, and sources: South Coast Air Quality Management District 2007; California Environmental Protection Agency 2002; California Air Resources Board 2009; United States Environmental Protection Agency 2003, 2009a, 2009b, 2010, 2011a, and 2012; National Toxicology Program 2011a and 2011b. Source of standards: California Air Resources Board 2013c.</p>						

## Local Air Quality

Meteorology acts on the emissions released into the atmosphere to produce pollutant concentrations. These airborne pollutant concentrations are measured throughout California at air quality monitoring sites. ARB operates a statewide network of monitors. Data from this network are supplemented with data collected by local air districts, other public agencies, and private contractors.

The monitoring station closest to the City of Pleasanton is the Rincon Avenue station in Livermore. The Rincon station monitors ozone (1-hour and 8-hour), nitrogen dioxide, and particulate matter (PM<sub>2.5</sub>). The monitoring station closest to the City of Pleasanton to monitor carbon monoxide and sulfur dioxide is the Oakland-West station in Oakland, and the closest monitoring station to measure particulate matter (PM<sub>10</sub>) is the Concord-2975 Treat Boulevard station in Concord.

Table 3.2-2 summarizes the recorded ambient air data at the representative monitoring stations for years 2010 through 2012. As Table 3.2-2 shows, the recorded data show exceedances of the California standards for ozone (1-hour, and 8-hour), and federal standards for 8-hour ozone and PM<sub>2.5</sub> (24-hour and annual), on one or more occasions from 2010 through 2012. No exceedances of either the state or national standards were recorded for nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), and other criteria pollutants.



**Table 3.2-2: Ambient Air Monitoring Data**

Air Pollutant	Averaging Time	Averaging Time (Units)	2010	2011	2012
Ozone	1-hour	Max 1 hour (ppm)	0.150	0.115	0.102
		Days > CAAQS (0.09 ppm)	3	3	2
	8-hour	Max 8 hour (ppm)	0.097	0.084	0.090
		Days > CAAQS (0.07 ppm)	6	9	4
		Days > NAAQS (0.075 ppm)	3	2	3
Carbon monoxide <sup>1</sup>	8-hour	Max 8 hour (ppm)	1.69	2.65	2.40
		Days > CAAQS Standard (9.0 ppm)	0	0	0
		Days > NAAQS Standard (9 ppm)	0	0	0
Nitrogen dioxide	Annual	Annual Average (ppm)	0.011	0.011	0.011
	1-hour	Max 1 hour (ppm)	0.058	0.057	0.053
		Days > CAAQS (0.18 ppm)	0	0	0
Sulfur dioxide <sup>1</sup>	Annual	Annual Average (ppm)	0.000	0.001	*
	24-hour	Max 24 hour (ppm)	0.004	*	*
		Days > State Standard (0.04 ppm)	0	0	*
Particulate matter (PM <sub>10</sub> ) <sup>2</sup>	Annual	State Annual Average (µg/m <sup>3</sup> )	13.7	15.7	12.6
	24-hour	Max 24 hour (µg/m <sup>3</sup> )	41.3	58.8	35.4
		Days > CAAQS (50 µg/m <sup>3</sup> )	0	1	0
		Days > NAAQS (150 µg/m <sup>3</sup> )	0	0	0
Fine particulate matter (PM <sub>2.5</sub> )	Annual	State Annual Average (µg/m <sup>3</sup> )	7.6	*	*
	24-hour	Max 24 hour (µg/m <sup>3</sup> )	34.7	45.4	31.1
		Estimated Days > NAAQS (35 µg/m <sup>3</sup> )	0	2	0
Abbreviations: > = exceed                                      ppm = parts per million                      µg/m <sup>3</sup> = micrograms per cubic meter * = insufficient/no data                      max = maximum CAAQS = California Ambient Air Quality Standard      NAAQS = National Ambient Air Quality Standard <sup>1</sup> Data from the station at Oakland-West <sup>2</sup> Data from the station at Concord-2975 Treat Boulevard. Source: California Air Resources Board, 2012.					

**Local Sources of Air Pollution**

Exhaust from cars and trucks are a local source of air pollutants. As shown on Exhibit 3.2-1, nearby sources of air pollution include Interstate 580 (I-580) north of the Plan Area, Union Pacific Rail Road that runs along the southern boundary of the Plan Area, and other stationary sources located within and near the Plan Area. Table 3.2-3 summarizes the stationary sources of air pollution within the Plan Area boundaries and within 1,000 feet of the Plan Area.

**Table 3.2-3: Stationary Sources of Air Pollution**

Company	Federal ID and Plant Code	Address	Pollutants of Concern	Distance to Project
Right Away Redy Mix, Inc.	FID 1630 Plant No 13166	501 El Charro Road, Pleasanton	PM <sub>10</sub> ; PM <sub>2.5</sub>	Within Plan Area boundaries
Vulcan Materials Company	FID 1619 Plant No 8507	50 El Charro Road, Pleasanton	PM <sub>10</sub> ; PM <sub>2.5</sub>	100-450 feet southeast of Plan Area boundary
Pleasanton Transfer Station and Recycling Center	FID 1027 Plant No G7767	3110 Busch Road, Pleasanton	ROG; CO; toluene, xylenes, methylene chloride	Within Plan Area boundaries
City of Pleasanton Operations Service Center	FID 1103 Plant No G8344	3333 Busch Road, Pleasanton	NO <sub>x</sub>	Within Plan Area boundaries

Source: California Air Resources Board, 2012; BAAQMD, 2012.

**Sensitive Receptors**

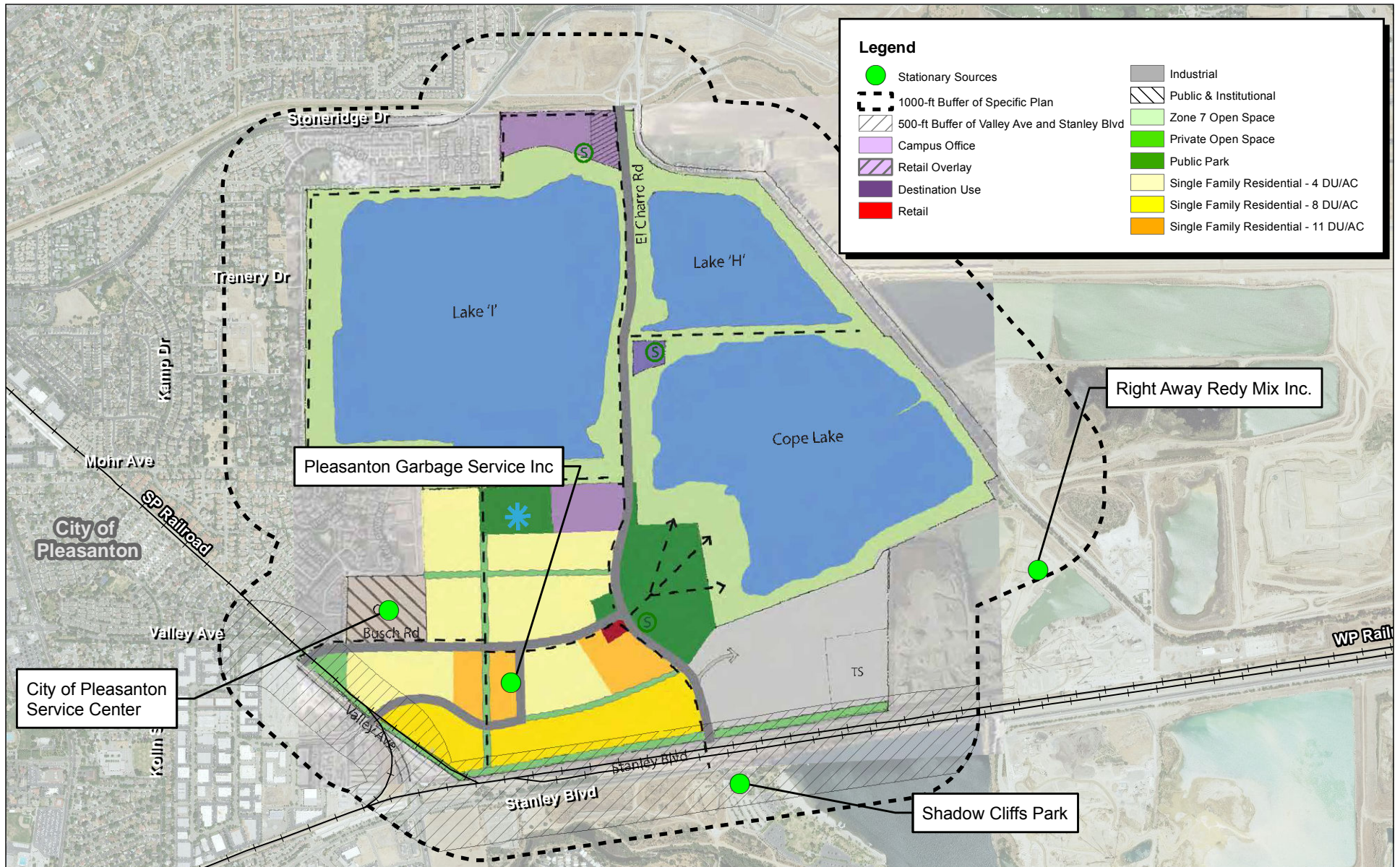
Some population groups such as children, the elderly, and persons with pre-existing respiratory or cardiovascular illness are more sensitive to air pollution than others. BAAQMD defines sensitive receptors as residential areas, hospitals and long-term health care facilities, rehabilitation centers, convalescent centers and retirement homes, elementary schools, daycare centers, playgrounds, athletic facilities and parks. Residential areas are considered sensitive to air pollution because residents, including children and the elderly, tend to be at home for extended periods of time, resulting in sustained exposure to pollutants. The Base Plan would construct sensitive receptors (residences) within the Plan Area. The nearest existing sensitive receptors and their approximate distance and direction from the nearest Plan Area boundary include the following:

*Residential Uses*

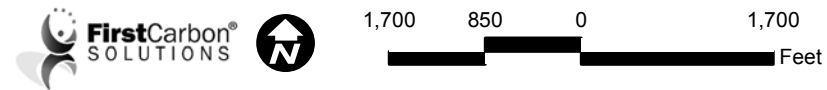
- Senior Care Facility (0.07 mile north of northern boundary)
- Ironwood Active Adult Community (0.07 mile west)
- Single-family residences (immediately adjacent to the western boundary)

In addition, existing schools, daycare centers and other child-care facilities within 0.5 mile of the Plan Area boundary include:

- Alisal Elementary School (0.50 mile west)
- Henry P. Mohr Elementary School (immediately north)
- Montessori School of Pleasanton (0.02 mile north of southwestern boundary)
- Quarry Lane School - East Campus (0.22 mile southwest)
- Hacienda School (0.30 mile west)
- Garden Creek Daycare and Preschool (0.43 mile west)



Source: ESRI Aerial Imagery, City of Pleasanton



## Exhibit 3.2-1 Local Community Risk

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### Attainment Status

Air basins where federal or state ambient air quality standards are exceeded are referred to as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are considered severe, serious, or moderate as a function of deviation from standards.

As shown in Table 3.2-4, the Air Basin is in nonattainment for the national and state 8-hour ozone standards, state 1-hour ozone standard, state 24-hour and annual PM<sub>10</sub> standards, and state annual PM<sub>2.5</sub> standard. This means that the area experiences poor air quality at times.

**Table 3.2-4: Air Basin Attainment Status**

Pollutant	Averaging Time	State Status	National Status
Ozone	1-hour	Nonattainment	Not Applicable <sup>1</sup>
	8-hour	Nonattainment	Nonattainment <sup>2</sup>
Carbon monoxide	1-hour and 8-hour	Attainment	Attainment
Nitrogen dioxide	1-hour	Attainment	Unclassified <sup>3</sup>
	Annual	No state classification	Attainment
Sulfur dioxide <sup>4</sup>	24-hour	Attainment	Attainment
	1-hour	Attainment	Attainment
	Annual	No state standard	Attainment
PM <sub>10</sub>	24-hour	Nonattainment	Unclassified
	Annual	Nonattainment	No federal standard <sup>5</sup>
PM <sub>2.5</sub>	24-hour	No state standard	Nonattainment <sup>6</sup>
	Annual	Nonattainment	Attainment

Notes:

- <sup>1</sup> The national 1-hour ozone standard was revoked by EPA on June 15, 2005.
- <sup>2</sup> Final designations effective July 20, 2012.
- <sup>3</sup> To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010).
- <sup>4</sup> On June 2, 2010, the EPA established a new 1-hour SO<sub>2</sub> standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030-ppm annual and 0.14-ppm 24-hour SO<sub>2</sub> National Ambient Air Quality Standards however must continue to be used until one year following EPA initial designations of the new 1-hour SO<sub>2</sub> National Ambient Air Quality Standards. EPA was expected to designate areas by June 2012; however, in a February 2013 letter to ARB, EPA indicated that it had extended the deadline to June 2013. EPA published final designations for the standard on August 5, 2013; however, the designations did not include California. Per the Final Rule for designations of the 2010 SO<sub>2</sub> standard, the EPA intends to address in separate future actions the designations for all other areas for which the agency is not yet prepared to issue designations and that are consequently not addressed in this final rule.
- <sup>5</sup> EPA revoked the annual PM<sub>10</sub> standard on September 21, 2006.
- <sup>6</sup> On January 9, 2013, EPA issued a final rule to determine that the Air Basin attains the 24-hour PM<sub>2.5</sub> national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Air Basin attains the standard. Despite this EPA action, the Air Basin will continue to be designated as nonattainment for the national 24-hour PM<sub>2.5</sub> standard until such time as the BAAQMD submits a redesignation request and maintenance plan to EP, and the EPA approves the redesignation.

Source: California Air Resources Board, 2013.

### 3.2.3 - Regulatory Framework

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The EPA regulates at the national level. ARB regulates at the state level and BAAQMD regulates at the Air Basin level.

#### Federal and State

The EPA is responsible for global, international, national, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards or national standards. There are national standards for six common air pollutants, called criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970. The criteria pollutants are:

- Ozone
- Particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>)
- Nitrogen dioxide
- Carbon monoxide (CO)
- Lead
- Sulfur dioxide

The national standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary national standards are the levels of air quality necessary, with an adequate margin of safety, to protect public health, as discussed in Ambient Air Quality Standards summary prepared by ARB.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain national standards. The State Implementation Plan for the State of California is administered by ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. ARB also administers California Ambient Air Quality Standards for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six national standards listed above as well as the following: visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

The national and state ambient air quality standards, the most relevant effects, the properties, and sources of the pollutants were previously summarized in Table 3.2-1.

#### Bay Area Air Quality Management District

BAAQMD regulates air quality in the Air Basin, which consists of the entirety of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the western portion of Solano County; and the southern portion of Sonoma County. BAAQMD is responsible for controlling and permitting industrial pollution sources (such as power plants, refineries, and manufacturing operations) and widespread, area wide sources (such as bakeries, dry cleaners, service stations, and commercial paint applicators), and for adopting local air quality plans (AQPs) and rules.

BAAQMD updated its CEQA Air Quality Guidelines (Guidelines) in June 2010 to include new thresholds of significance (2010 Thresholds). BAAQMD's Guidelines were further updated in May 2011 (2011 Guidelines). The 2010 Thresholds included new thresholds of significance for plan-level greenhouse gases (GHGs), and risks and hazards.

On March 5, 2012, the Alameda County Superior Court issued a judgment finding that BAAQMD had failed to comply with CEQA when it adopted the 2010 Thresholds. The Court did not determine whether the 2010 Thresholds were valid on the merits, but found that the adoption of the 2010 Thresholds was a project under CEQA. The Court issued a writ of mandate ordering BAAQMD to set aside the 2010 Thresholds (including any guidance documents which contain the 2010 thresholds) and cease dissemination of them until they had complied with CEQA. BAAQMD appealed the Alameda County Superior Court's decision and the case went to the Court of Appeal, First Appellate District. The Court of Appeals ruled that BAAQMD's adoption of new or revised thresholds of significance are not a "project" under CEQA and, therefore, are not required to comply with CEQA requirements.

After the Alameda County Superior Court's Decision, BAAQMD stopped recommending that the 2010 Thresholds be used as a generally applicable measure of a project's significant air quality impacts. BAAQMD released a new version of its Guidelines in May 2012, in which the 2010 Thresholds were removed. BAAQMD, however, recommends that lead agencies determine appropriate air quality thresholds of significance based on substantial evidence in the record.

### ***Air Quality Plans***

The latest Air Quality Plan in the Basin is the 2010 Clean Air Plan, which provides the following objectives:

- Review progress in improving Bay Area air quality to date.
- Establish a control strategy including "all feasible measures" to achieve state ozone standards by the earliest practicable date and reduce transport of ozone precursors to neighboring air basins.
- Address ozone, particulate matter, air toxics, and GHG emissions in a single integrated plan.

The 2010 CAP was developed as a multi-pollutant plan; it provides an integrated control strategy to reduce ozone, PM, toxic air contaminants, and greenhouse gases. The key goals defined in the 2010 CAP are to:

1. Protect air quality,
2. Protect public health, and
3. Protect the climate.

BAAQMD identified the purpose for developing a multi-pollutant plan as "to achieve the greatest possible public health benefit by reducing emissions, ambient concentrations, and public exposure across the four categories of air pollutants addressed in the 2010 CAP."

Air Quality Plans are required to address transportation control measure requirements of the federal Clean Air Act and California Clean Air Act. Transportation control measures are defined as “any strategy to reduce vehicle trips, vehicle use, VMT, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions.” The Bay Area has extensive experience with developing and implementing transportation control measures. The first regional plan prepared pursuant to the California Clean Air Act, the 1991 Clean Air Plan, included 23 transportation control measures to meet state planning requirements (state transportation control measures). Plan updates in 1994 and 1997 included revisions to the transportation control measures.

### **Metropolitan Transportation Commission and Association of Bay Area Governments**

In July 2013, the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) jointly approved Plan Bay Area, which includes the region’s Sustainable Communities Strategy and the 2040 Regional Transportation Plan, and the associated Final EIR. Two of the ten “targets” of Plan Bay Area address the requirements of Senate Bill 375, The California Sustainable Communities and Climate Protection Act of 2008 (Steinberg).

The first two targets are required by Senate Bill 375, and address the respective goals of climate protection and adequate housing:

- Reduce per-capita carbon dioxide emissions from cars and light-duty trucks by seven percent by 2020 and by 15 percent by 2035.
- House 100 percent of the region’s projected 25-year growth by income level (very-low, low, moderate, above-moderate), without displacing current low-income residents.

Four lawsuits were filed in 2013 against Plan Bay Area with the Alameda County Superior Court by (1) Bay Area Citizens, (2) Communities for a Better Environment and the Sierra Club, (3) the Building Industry Association of the Bay Area, and (4) the Post Sustainability Institute. Three of the four lawsuits were settled out of court in 2014, or did not succeed at the trial-court level. The Alameda County Superior Court entered an order in January 2015 that denied the Post Sustainability Institute’s Petition for Writ of Mandate under CEQA, but did not address the other claims and causes of action alleged under the lawsuit, which are to be addressed separately in further proceedings.

### **City of Pleasanton**

#### **General Plan**

The Pleasanton General Plan sets forth the following goals, policies, and programs in the Air Quality and Climate Change Element that are relevant to the proposed project:

- **Goal 1:** Implement a proactive approach, and use available technology to maintain and improve air quality within Pleasanton and the region to protect the public health, safety, and welfare.
- **Goal 2:** Promote sustainable development and planning to minimize additional air emissions.
  - **Policy 1:** Adhere to federal and State air quality standards for local pollutants of concern.
    - o **Program 1.1:** Incorporate measures in conditions of approval for development projects to reduce grading, construction, and operations-related air quality impacts.



- **Program 1.2:** Support State and federal legislation that promotes improvements in air quality.
- **Policy 2:** Support development plans that reduce mobile-source emissions by reducing vehicle trips and vehicle miles traveled.  

Implement programs from the Land Use Element to provide mixed-use developments, locate high-density uses near transit facilities, and provide neighborhood-serving retail uses convenient to residential neighborhoods. These programs would reduce vehicle trips and vehicle miles traveled, thus reducing air-pollutant emissions.
- **Policy 3:** Separate air pollution sensitive land uses from sources of air pollution.
  - **Program 3.1:** Locate new air pollution point sources, such as manufacturing and extracting facilities, away from residential areas and other sensitive land uses following the California Air Resource Board’s recommendations.
  - **Program 3.2:** Locate new sensitive receptors, such as residences (including residential care and assisted living facilities for the elderly), childcare centers, schools, playgrounds, and medical facilities away from point sources of air pollution and busy traffic corridors following the California Air Resource Board’s recommendations.
  - **Program 3.3:** Require site-specific studies of air quality health risk for development that would place sensitive receptors closer than 500 feet from the edge of a freeway or close to a significant point source of air pollution.
- **Policy 4:** Reduce air pollution from motor-vehicle trips and vehicle-miles traveled.
  - **Program 4.1:** Develop standards for the design and use of new drive-through businesses to minimize adverse impacts on air quality. Public education and the use of new technologies should be considered as part of this program.
- **Policy 5:** Review proposed projects for their potential to impact air quality conditions.
  - **Program 5.1:** Include air quality as a factor in the City’s environmental review process. Encourage development plans that minimize negative impacts on air quality.
  - **Program 5.2:** Require projects that generate high levels of air pollutants, such as manufacturing facilities and hazardous waste handling operations, to incorporate air quality mitigations in their design. Adopt an ordinance regulating burning indoors and outdoors, including fireplaces, wood-burning stoves, and fire pits. The ordinance may consider allowable hours and setbacks from neighbors.
- **Policy 8:** Minimize unpleasant odors in residential neighborhoods.
  - **Program 8.1:** Continue efforts to have the asphalt plant relocated away from Vineyard Avenue residents.
  - **Program 8.2:** Continue working with the Dublin-San Ramon Services District (DSRSD) to ensure that odors from the sewage-treatment plant are minimized and other air emissions meet all regulatory requirements.
- **Policy 9:** Strongly encourage citizen and business participation in reducing air pollution.
  - **Program 9.1:** Provide regional and local air-quality information on the City of Pleasanton’s website, including links to the Bay Area Air Quality Management District, the California Air Resources Board, Alameda County Waste Management Authority Stop Waste.org, and other environmental-based internet sites.
  - **Program 9.2:** Establish an air quality public awareness program which includes changes that people can make to minimize air pollution. This program would educate the public

and encourage people to choose the cleanest paints and consumer products, and to purchase the most energy-efficient appliances, landscaping equipment, and gas cans. This program would further encourage the public to purchase more energy-efficient vehicles and to properly maintain them.

- **Program 9.3:** Develop incentives for the public to help reduce air pollution. This includes offering incentive programs for using non-motorized (i.e., pedestrian and bicycle) and low-polluting mobility alternatives.
- **Program 9.4:** Develop a recognition and awards program for businesses that reduce air pollution.
- **Program 9.5:** Provide information to the public regarding the importance of “Spare the Air Days” and how people can make a positive impact on the environment.
- **Program 9.6:** When the School District replaces landscaping, cleaning, and other fuel-powered equipment, strongly encourage the District to purchase the least polluting equipment available that is feasible.

Implement measures from the Circulation Element to encourage public participation in Ride Share and other public transportation programs.

### 3.2.4 - Methodology

The purpose of BAAQMD’s Guidelines is to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the Basin. The Guidelines contain guidance on how to determine the significance of a project’s emissions of GHGs. This analysis follows the guidance in the Guidelines where appropriate. Based on substantial evidence in the record, BAAQMD’s 2010 Thresholds for plan-level impacts were utilized for this document. To the degree applicable, the 2011 Guidelines (which contain the 2010 Thresholds) were used in the impact analysis.

#### Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, air quality impacts resulting from the implementation of the Base Plan would be considered significant if the project would:

- a) Conflict with or obstruct implementation of the applicable air quality plan.
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- 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).
- d) Expose sensitive receptors to substantial pollutant concentrations.
- e) Create objectionable odors affecting a substantial number of people.

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.

### 3.2.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Consistency with the 2010 Clean Air Plan

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**Impact AIR-1: Development and land use activities contemplated by the Specific Plan would conflict with or obstruct implementation of the 2010 Clean Air Plan.**

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#### **Impact Analysis**

Growth in the Plan Area was anticipated by the Pleasanton General Plan, which includes the East Pleasanton Specific Plan as a planning sub-area in the Land Use Element. Specifically, General Plan Land Use Element Table 2-2 (Commercial, Office, and Industrial) provides that the Plan Area would be developed as retail, research & development and industrial park, with 4,150,000 square feet at full buildout. The Specific Plan, as proposed, would include residential land uses and a reduced total square foot of retail, office, and industrial uses from what was contained within the City's General Plan. The City's General Plan was adopted in July 2009. The BAAQMD's 2010 Clean Air Plan was adopted in September 2010. Therefore, it is reasonable to assume that the growth projected within the City's General Plan was included within the 2010 Clean Air Plan.

BAAQMD's Guidelines indicate that the threshold of significance for operational-related criteria air pollutant and precursor impacts for long-range plans (general plans, redevelopment plans, specific plans, area plans, community plans, transportation plans, congestion management plans, etc.) is consistent with the 2010 Clean Air Plan. All of the following criteria must be satisfied for a proposed plan to be consistent with the 2010 Clean Air Plan, and to result in a less than significant impact.

Proposed plans must show over the planning period of the plan that:

- The plan supports the primary goals of the 2010 Clean Air Plan.
- The plan incorporates current 2010 Clean Air Plan control measures as appropriate to the Plan Area.
- The projected vehicle miles traveled or vehicle trips increase is less than or equal to projected population increase.

Attainment of the above items are discussed in the following paragraphs.

#### *2010 Clean Air Plan Primary Goals*

The three core goals of the 2010 Clean Air Plan are improving air quality, protecting public health, and protecting the climate. To assess the Base Plan's consistency with the goals of the 2010 Clean Air Plan, this assessment reviews the Base Plan's potential to generate a significant localized or regional air quality impact, the Base Plan's potential to significantly expose sensitive receptors to substantial air pollutants, and the Base Plan's potential to generate a significant greenhouse gas impact.

### **Localized and Regional Air Quality Impacts**

The Base Plan would result in potentially significant impacts related to localized fugitive dust and construction equipment emissions and regional vehicle exhaust. As shown in Impact AIR-2, implementation of the Specific Plan is estimated to generate potentially significant impacts from construction-emitted fugitive dust. Implementation of Mitigation Measure AIR-2 would reduce the potential fugitive dust impact to less than significant.

As shown in Impact AIR-3, the Base Plan would generate a potentially significant impact from construction equipment emissions and vehicle exhaust. This potential significant impact is largely a function of the large size of the Plan Area. Implementation of Mitigation Measure AIR-3 would reduce the potential construction equipment emission impacts; however, this would remain significant and unavoidable after mitigation.

The Base Plan's regional air quality impact is assessed by reviewing the Base Plan's increase in VMT relative to its increase in population. As shown in the VMT to population analysis below, the Base Plan would not generate a significant regional impact. As such, the Base Plan would not hinder efforts to attain air quality standards. However, project construction may hinder efforts to attain air quality standards. This would result in a significant regional air quality impact and would be inconsistent with the Clean Air Plan. Therefore, this impact is potentially significant.

### **Expose Sensitive Receptors to Substantial Air Pollutants**

As described in Impact AIR-4, the Base Plan has the potential to expose future residents to substantial quantities of TACs. This impact would be reduced to less than significant with implementation of the City's General Plan Implementation Programs 3.1, 3.2, and 3.3, and Mitigation Measures AIR-4a and AIR-4b. Therefore, the Base Plan would not expose sensitive receptors to substantial air pollutants, and impacts would be less than significant.

### **Greenhouse Gas Impacts**

As discussed in Section 3.6, Greenhouse Gas Emissions this Draft EIR, the Base Plan would have a less than significant impact on GHG emissions.

### **Summary of Consistency with Clean Air Plan Goals**

In summary, the Base Plan would further two of the primary goals of the 2010 Clean Air Plan after incorporation of Mitigation Measures AIR-2, AIR-3, AIR-4a, and AIR-4b; however, the Base Plan would generate a significant and unavoidable regional air quality impact associated with construction period emissions and vehicle exhaust related to the large size of the Plan Area. Therefore, the Base Plan would not further all the primary goals of the 2010 Clean Air Plan. This impact is significant and unavoidable.

### *Control Measures*

The second step to ensure that the Base Plan would not conflict with or obstruct the 2010 Clean Air Plan requires the Base Plan to be consistent with appropriate control measures. The Pleasanton General Plan establishes a number of goals and policies that are consistent with the strategies and control measures identified in the 2010 Clean Air Plan. These include goals and policies that promote sustainable development to minimize air emissions; provide mixed-use developments;

locate high-density uses near transit facilities; provide neighborhood-serving retail uses convenient to residential neighborhoods; reduce impact to sensitive land uses from air pollution; require complete streets; reduce waste; incorporate green building standards and energy conservation; and encourage water-efficiency, water conservation, and the use of reclaimed water. The Base Plan would be consistent with the applicable measures of the Pleasanton General Plan and, as such, would not conflict with the applicable provisions of the 2010 Clean Air Plan.

*Vehicle Miles Traveled and Population Increase*

The third step to ensure that the Base Plan would not conflict with or obstruct the 2010 Clean Air Plan is to show that the projected VMT or vehicle trips increase for the Base Plan is less than or equal to the projected population increase. Specifically, the projected VMT or vehicle trips increase for the Base Plan must be less than or equal to the projected population increase to be less than significant. As discussed below, the increase in VMT would be less than the increase in population, resulting in a less than significant impact for this criterion.

BAAQMD Guidelines state that population estimates should be derived from the most recent issue of the Association of Bay Area Governments' Projections publication. The U.S. Census indicated that the population of Pleasanton was 63,654 in 2000 and 70,285 in 2010. The MTC's Plan Bay Area Final Forecasting of Jobs, Population and Housing (July 2013) indicates a 28 percent growth in jobs in Pleasanton between 2010 and 2040, and a 27 percent increase in total housing units in the same timeframe. The MTC also estimates that countywide, Alameda County will see a 36 percent growth in employment, a 25 percent increase in housing units, and a 32 percent increase in population.

Although the Transportation Impact Analysis prepared for the Base Plan includes data for existing intersection volumes and level of service, the document does not include trip generation or land use data sufficient to estimate VMT from existing facilities in the Plan Area. Therefore, the Base Plan's potential VMT increase was analyzed under two scenarios:

- "Project Baseline Scenario," which considered the land use development proposed by the Base Plan with no trip reductions from internal capture or alternative mode use.
- "Project With Reductions Scenario," which considered the land use development proposed by the Base Plan that incorporates the trip reductions due to location and design as detailed in the project's Transportation Impact Analysis.

Table 3.2-5 shows the estimated VMT for the Base Plan under the two scenarios. As shown in Table 3.2-5, the Base Plan would reduce annual VMT and VMT per capita by 16 percent from the Baseline Scenario. This reduction is attributable to the Base Plan design and location, which includes an intensification of an area adjacent to existing urban development with available transit options.

**Table 3.2-5: Vehicle Miles Traveled Comparison**

Scenario	Service Population	Total Annual VMT	Total Daily VMT	Daily VMT per Service Population
Project Baseline (No trip reductions)	7,584	74,664,753	204,561	26.97
Project (With Trip Reductions)	7,584	62,486,015	171,195	22.57
Percent Difference	0	-16 %	-16 %	-16 %
Notes: VMT = vehicle miles traveled Service Population = 3,718 Residents and 3,866 Jobs Source: FCS, 2015.				

As shown in Table 3.2-6, based on the projected increase in jobs for the Plan Area, the percent job growth is estimated to be more than 1,800 percent between 2014 and 2020, and the compound annual growth rate is estimated to be 307 percent in the same timeframe. The Plan Area currently has no housing; thus, the percent increase in population is not definable because it is non-calculable. (It is not mathematically possible to calculate a percent increase above an existing amount of zero. When the “existing” amount approaches zero, the percent increase approaches infinity.) However, the inclusion of 1,300 residential units, which would accommodate an estimated 3,718 residents (based on the default CalEEMod rate of 2.86 people per household), would bring the jobs-to-housing ratio of the Plan Area closer to a balance. Without the Base Plan, the area contains only jobs and no housing. With the Base Plan, the area would have a jobs-to-housing ratio of 2.97.

**Table 3.2-6: Jobs to Housing Comparison**

Year	Jobs	Dwelling Units	Population
2014	< 200	0	0
2020	3,866	1,300	3,718
Difference	3,667	1,300	3,718
Percent Growth	1,842.71%	—	—
Annual Growth Rate	307.12%	—	—
Source: City of Pleasanton, 2013.			

The Specific Plan would increase the trips and, therefore, the VMT generated by the Plan Area. However, as explained above, the percent increase in residential units would be greater than the percent increase in VMT, resulting in a less than significant impact for this criterion.

#### Conclusion

As discussed above, implementation of Specific Plan would not conflict with the applicable provisions of the 2010 Clean Air Plan, and the Specific Plan’s percent increase in residential units would be greater than the percent increase in VMT. However, as discussed under Impact AIR-1, the

Specific Plan would not further all the primary goals of the 2010 Clean Air Plan as a result of significant and unavoidable construction equipment and vehicle exhaust air quality impacts. This impact is related to the large size of the Plan Area. Because construction-generated impacts would remain significant after incorporation of mitigation, this impact would be significant and unavoidable.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

Implement Mitigation Measure AIR-2, AIR-3, AIR-4a, and AIR-4b.

**Level of Significance After Mitigation**

Significant and unavoidable impact.

**Air Quality Violations**

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<b>Impact AIR-2:</b>	<b>Development and land use activities contemplated by the Specific Plan would violate an air quality standard or contribute substantially to an existing or projected air quality violation.</b>
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**Impact Analysis**

Development and land use activities contemplated by the Base Plan would include construction and operational air emissions of criteria pollutants. This impact analysis assesses the Base Plan’s potential for localized air quality impacts; specifically, short-term construction air emissions related to fugitive dust and operational carbon monoxide exceedances.

*Construction Fugitive Dust*

Construction activities associated with development activities contemplated by the Base Plan would include grading, demolition, building construction, and paving. Generally, the most substantial air pollutant emissions would be dust generated from site grading. If uncontrolled, these emissions could lead to both health and nuisance impacts. Construction activities would also temporarily create emissions of equipment exhaust and other air contaminants. The Base Plan’s potential impacts from equipment exhaust are assessed separately in Impact AIR-3, below.

BAAQMD does not recommend a numerical threshold for fugitive, dust-related particulate matter emissions. Instead, BAAQMD bases the determination of significance for fugitive dust on a consideration of the control measures to be implemented. If all appropriate emissions control measures recommended by BAAQMD are implemented for a project, then fugitive dust emissions during construction are not considered significant. Mitigation Measure AIR-2 includes the fugitive dust control measures recommended by BAAQMD, thereby reducing this impact to less than significant.

*Carbon Monoxide (CO)*

Localized high levels of CO (CO “hotspot”) are associated with traffic congestion and idling or slow-moving vehicles. 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 not necessary. The Base Plan 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).

The Alameda Transportation Commission (Alameda CTC) serves as the Congestion Management Agency (CMA) for Alameda County. As the CMA, the Alameda CTC must, under state law, prepare a Congestion Management Program (CMP) and update it every two years. The CMP is meant to outline the Alameda CTC's strategies for managing the performance of the regional transportation within the County. A CMP must contain several components: traffic level of service standards for State highways and principal arterials; multi-modal performance measures to evaluate current and future systems; a seven-year capital program of proposed projects to maintain or improve the performance of the system or mitigate the regional impacts of land use proposed projects; a program to analyze the impacts of land use decisions; and a travel demand element that promotes transportation alternatives to the single-occupant vehicle.

As indicated in Section 3.14 of this Draft EIR, the Base Plan was found to worsen already deficient operations on the following segments in 2020 by increasing the volume-to-capacity (V/C) ratio by more than 0.03 or result in unacceptable operations:

- Interstate 680 between Sunol Boulevard and State Route 84
- Stanley Boulevard between Isabel Avenue and Vineyard Avenue
- Santa Rita Road between Valley Avenue and Las Positas Road
- Isabel Avenue between Stanley Boulevard and Concannon Boulevard
- Vallecitos Road between I-680 and Isabel Avenue

In 2035, the addition of Base Plan trips would increase the V/C ratio of a segment already operating at LOS F by more than 0.03:

- Stanley Boulevard between Isabel Avenue and Vineyard Avenue
- Santa Rita Road between Valley Avenue and Las Positas Road
- Isabel Avenue between Stanley Boulevard and Concannon Boulevard
- Vallecitos Road between I-680 and Isabel Avenue



These significant impacts would result in the Base Plan being inconsistent with the CMP; however, mitigation has been incorporated into the project (see the Traffic Impact discussion in Section 3.14 for details) to reduce the impact to less than significant. As such, the Base Plan would be consistent with the CMP, thereby satisfying the first screening criteria.

The Traffic Impact Study (TIS) prepared for the Base Plan (Appendix H) identified peak-hour traffic volumes for 27 intersections affected by the Base Plan. As identified in the TIS, the maximum peak-hour intersection volume would occur at the Jack London/Isabel Avenue intersection and the Bernal Avenue at First Street/Sunol Boulevard in the Cumulative traffic scenario. The estimated cumulative traffic volume at the Jack London/Isabel Avenue is 7,444 AM peak-hour trips, and 8,417 PM peak-hour trips. The estimated cumulative traffic volume at the Bernal Avenue at First Street/Sunol Boulevard is 4,208 AM peak-hour trips, and 4,628 PM peak hour trips. These levels of peak-hour trips are substantially less than the BAAQMD's second and third screening criteria of 44,000 vehicles per hour and 24,000 vehicles per hour, respectively. Therefore, impacts associated with this criteria would be less than significant.

### **Level of Significance Before Mitigation**

Potentially significant impact.

### **Mitigation Measures**

**MM AIR-2** To reduce fugitive dust (PM<sub>10</sub>) emissions from construction activity, the following measures shall be implemented:

- Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
- Cover all hauling trucks or maintain at least two feet of freeboard.
- Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
- Limit traffic speeds on any unpaved roads to 15 miles per hour.
- Replant vegetation in disturbed areas as quickly as possible.
- Suspend construction activities that cause visible dust plumes to extend beyond the construction site.
- Post a publicly visible sign(s) with the telephone number and name of the 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.

**Level of Significance After Mitigation**

Less than significant impact.

**Cumulative Criteria Pollutants**

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**Impact AIR-3: Development and land use activities contemplated by the Specific Plan would result in a cumulatively considerable net increase of criteria pollutants for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).**

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**Impact Analysis**

Development and land use activities contemplated by the Base Plan would include construction and operational air emissions of criteria pollutants. This impact analysis assesses the Base Plan's potential for regional air quality impacts; specifically, short-term construction and long-term operational air emissions.

*Construction Equipment Exhaust*

The BAAQMD does not have thresholds for *plan-level* construction-generated nitrous oxides (NO<sub>x</sub>), PM<sub>10</sub> exhaust, PM<sub>2.5</sub> exhaust, and reactive organic gases (ROG) (also an ozone precursor). However, BAAQMD's 2010 Thresholds do have numerical thresholds for *project-level* ROG, NO<sub>x</sub>, PM<sub>10</sub> exhaust, and PM<sub>2.5</sub> exhaust. This document sets forth guidance for evaluating and mitigating construction-related ROG, NO<sub>x</sub>, PM<sub>10</sub> exhaust, and PM<sub>2.5</sub> exhaust emissions for project-level analysis. Preliminary project-level screening for construction-related criteria pollutants involves meeting criteria for screening size, implementing all basic construction mitigation measures, and exclusion of the following construction related activities:

- Demolition activities inconsistent with BAAQMD Regulation 11, Rule 2: Asbestos Demolition, Renovation and Manufacturing
- Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously)
- Simultaneous construction of more than one land use type
- Extensive site preparation
- Extensive material transport (e.g. greater than 10,000 cubic yards of soil import or export)

The timing and components of construction are not known at this time. Construction within the Plan Area consistent with the Specific Plan may exceed BAAQMD's preliminary screening guidance. Therefore, without a detailed emissions analysis (which cannot be performed with accuracy at this time) or application of mitigation, this impact is potentially significant. Incorporation of Mitigation Measure AIR-3 reduces this impact. However, Mitigation Measure AIR-3 may not reduce the impacts of large construction projects involving extensive equipment and/or material transport to less than significant. This impact would remain significant and unavoidable.

### *Operational Emissions*

According to the checklist in the CEQA Guidelines, a project would create a significant impact if it would “result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).”

Section 15130(b) of the CEQA Guidelines states, in relevant part, the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts incorporates a summary of projections.

The geographic scope for cumulative criteria pollution from air quality impacts is the Air Basin, because that is the area in which the air pollutants generated by the sources within the Air Basin circulate and are often trapped. BAAQMD is required to prepare and maintain a Clean Air Plan and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While BAAQMD does not have direct authority over land use decisions, it recognized that changes in land use and circulation planning are necessary to maintain clean air. BAAQMD evaluated the entire Air Basin when it developed the Clean Air Plan.

The Air Basin is in nonattainment for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals such as the elderly, children, and the sick. Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects that were described in Table 3.2-1. However, the health effects are a factor of the dose-response curve (U.S. EPA 1991). Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects.

According to the analysis contained in Impact AIR-1, while construction emissions would not be consistent with the Clean Air Plan, operation of the Base Plan would be consistent. Specifically, the growth projected by the Base Plan is consistent with the growth assumptions of the Clean Air Plan, and the Base Plan’s increase in VMT would be less than the Base Plan’s population growth. In addition, the Base Plan would be consistent with the air pollution reduction and control strategies outlined in the 2010 Clean Air Plan. Finally, the Base Plan’s VMT and population growth assumptions would be reduced from a suburban or “greenfield” development scenario, and bring the jobs-to-

housing ratio within the Plan Area closer to balance. Therefore, impacts would be less than significant.

*Summary*

Overall, while long-term operational impacts would be less than significant, the short-term construction impacts would remain significant and unavoidable because Mitigation Measure AIR-3 may not reduce the impacts of large construction projects involving extensive equipment and/or material transport to less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM AIR-3** To reduce exhaust emissions from off-road construction equipment, the following measures shall be implemented:

- The developer or contractor shall provide a plan for approval by the City or Bay Area Air Quality Management District (BAAQMD) demonstrating that heavy-duty off-road vehicles to be used in the construction project, including owned, leased, and/or subcontractor vehicles, shall meet or exceed United States Environmental Protection Agency Tier 3 off-road emissions standards when more than five pieces of off-road diesel equipment with a horsepower greater than 70 per piece of equipment would operate on one day.
- Clear signage at all construction sites will be posted indicating that diesel equipment standing idle for more than 5 minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite or adjacent to the construction site.
- The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).
- Properly tune and maintain equipment for low emissions.

**Level of Significance After Mitigation**

Significant and unavoidable impact.

**Sensitive Receptors**

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**Impact AIR-4:**      **Development and land use activities contemplated by the Specific Plan may expose sensitive receptors to substantial pollutant concentrations.**

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**Impact Analysis**

Sensitive receptors are land uses that house sensitive populations (children, the elderly, and the sick) for sustained periods. Examples of land uses include residential areas, schools, hospitals, convalescent facilities, and daycare centers. TACs are the air pollutants of most concern as it relates to sensitive receptors, as they have the greatest potential to pose a carcinogenic and non-carcinogenic (such as asthma and bronchitis) hazard to human health. Based on the types of land

use activities present in the Plan Area, DPM is the TAC most likely to occur locally. DPM is emitted by vehicles with diesel engines (trucks, heavy equipment, etc.). BAAQMD's guidance indicates that lead agencies should consider the extent to which a new TAC source would increase risk levels, hazard index, or PM<sub>2.5</sub> concentrations at nearby receptors. Specifically, the 2010 Thresholds recommend:

1. An overlay zone around existing and planned sources of TACs.
2. Overlay zones of at least 500 feet from all freeways and high volume roadways.

For project-level analysis, BAAQMD provides three tools for use in screening potential sources of TACs. These tools are:

- **Surface Street Screening Tables.** BAAQMD pre-calculated potential cancer risk and PM<sub>2.5</sub> concentration increases for each county within their jurisdiction. The look-up tables are used for roadways that meet 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 receptors.
- **Freeway Screening Analysis Tool.** BAAQMD prepared a Google Earth file that contains pre-estimated cancer risk, hazard index, and PM<sub>2.5</sub> 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.** 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, BAAQMD provides conservative cancer risk and PM<sub>2.5</sub> concentration increase values.

BAAQMD recommends the use of these three tools in a screening process for project-level analysis to identify whether further environmental review of potential TAC or PM<sub>2.5</sub> concentration risk for a project is warranted. Specifically, emissions sources within 1,000 feet of a proposed project boundary should be evaluated. As such, these tools are relevant to future development proposals subsequent to adoption of the project, but they are not applicable to this plan-level analysis.

#### *Toxic Air Contaminant and PM<sub>2.5</sub> Risk*

As stated within the Environmental Setting, and shown on Exhibit 3.2-1, nearby sources of air pollution includes I-580 north of the northern boundary of the project site; Union Pacific Rail Road, which runs adjacent to the southern portion of the project site; as well as stationary sources located within Plan Area and within 1,000 feet of the Plan Area.

Use of BAAQMD's screening tools provide potential risks as currently estimated. Based on current conditions, the proposed residential land use would not be exposed to unacceptable TAC levels, because they would be located more than 1,000 feet from existing stationary sources and more than 3,000 feet from I-580 north and State Route 84, based on Exhibit 2-4 Land Use Plan.

However, the environment (roadway trip volumes, rail use, locations of stationary sources) is likely to change by the time that residential land uses are proposed; residential units may be located within

1,000 feet of stationary sources and high-volume roadways. In addition, future commercial or industrial projects within the Plan area may locate new sources of TACs in proximity to existing or proposed sensitive receptors. Therefore, the level of risk associated with future projects in the Plan Area subsequent to this plan cannot be evaluated with certainty at this time under this plan-level analysis, and must be determined using a project-level analysis when the exact type, identity and location of uses are known. Mitigation Measures AIR-4a and AIR-4b are proposed to reduce potential impacts to less than significant.

#### *Asbestos from Demolition*

Structures to be demolished sometimes contain asbestos containing materials. As discussed in Impact HAZ-3, asbestos-containing material may be present in the Plan Area, although the impacts would be less than significant after the implementation of mitigation. Furthermore, demolition of existing buildings and structures would be subject to BAAQMD Regulation 11, Rule 2 (Asbestos Demolition, Renovation, and Manufacturing), which is intended to limit asbestos emissions from demolition or renovation of structure and the associated disturbance of asbestos-containing waste material generated or handled during these activities. The rule addresses the national emissions standards for asbestos along with some additional requirements. The rule requires the Lead Agency and its contractors to notify BAAQMD of any regulated renovation or demolition activity. This notification includes a description of structures and methods utilized to determine whether asbestos-containing materials are potentially present. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity in accordance with BAAQMD Regulation 11, Rule 2, including specific requirements for surveying, notification, removal, and disposal of asbestos-containing materials. Therefore, projects that comply with BAAQMD Regulation 11, Rule 2 would ensure that asbestos-containing materials would be removed and disposed of appropriately and safely. By complying with BAAQMD Regulation 11, Rule 2, thereby minimizing the release of airborne asbestos emissions, demolition activity would not result in a significant impact to air quality.

#### **Level of Significance Before Mitigation**

Potentially significant impact.

#### **Mitigation Measures**

**MM AIR-4a** Prior to issuance of building permits for any sensitive receptor use (residential areas, elementary school, daycare centers, etc.) that would be developed pursuant to the Specific Plan, the applicant shall complete either of the following two options:

1. Prepare and submit a toxic air contaminant risk screening assessment to the City of Pleasanton that demonstrates the potential risk from roadways, rail, and stationary sources would not exceed the Bay Area Air Quality Management District's (BAAQMD's) cumulative risk threshold for toxic air contaminant impacts;  
or
2. Prepare and submit a Health Risk Analysis to the City of Pleasanton, consistent with BAAQMD's recommended methodology, that demonstrates the potential risk from roadways, rail, and stationary sources would not exceed the BAAQMD's cumulative risk threshold for toxic air contaminant impacts. If mitigation is

required to reduce a potentially significant risk to less than the cumulative risk threshold, that mitigation shall be clearly identified and the associated risk reduction quantified. The mitigation must be incorporated into the project and implemented.

**MM AIR-4b** Prior to issuance of building permits for any potential source of toxic air contaminants that would be developed pursuant to the Specific Plan, the applicant shall complete either of the following two options:

1. Prepare and submit a toxic air contaminant risk screening assessment to the City of Pleasanton that demonstrates the proposed development would not expose sensitive receptors to levels of risk that exceed the BAAQMD's project level and cumulative risk threshold for toxic air contaminant impacts.
2. Prepare and submit a Health Risk Analysis to the City of Pleasanton consistent with BAAQMD's recommended methodology, which demonstrates the proposed development would not expose sensitive receptors to levels of risk that would exceed the BAAQMD's project level and cumulative risk threshold for toxic air contaminant impacts. If mitigation is required to reduce a potentially significant risk to less than the cumulative risk threshold, that mitigation shall be clearly identified and the associated risk reduction quantified. The mitigation must be incorporated into the project and implemented.

#### ***Level of Significance After Mitigation***

Less than significant impact.

#### **Odors**

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**Impact AIR-5: Development and land use activities contemplated by the Specific Plan would not create objectionable odors affecting a substantial number of people.**

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#### ***Impact Analysis***

BAAQMD's Guidelines state that for plans to have a less than significant impact, the location of odors should be identified, and policies to minimize the impacts of existing or planned sources of odors must be identified.

Typical sources of odor identified by BAAQMD include wastewater treatment plants, wastewater pumping facilities, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing, fiberglass manufacturing, painting/coating operations, rendering plants, coffee roasters, food processing facilities, confined animal facility/feedlot/dairy, green waste and recycling operations, and metal smelting plants.

According to the City of Pleasanton General Plan, there is an asphalt plant located on CEMEX property south of Stanley Boulevard near the Vineyard Avenue corridor. The property is under Alameda County's jurisdiction. Numerous odor complaints from Pleasanton residents have occurred as a result from the operations of the plant. In 2007, the City reached an agreement with Alameda County, Granite Construction, and CEMEX to move the asphalt plant closer to Stanley Boulevard near

Shadow Cliffs (City of Pleasanton 2009). This agreement has resulted in a reduction of odor impacts from the residents in the Vineyard Avenue corridor, but could potentially impact future residents within the Plan Area. Implementation of City General Plan Air Quality and Climate Change Element Policy 8 (Minimize unpleasant odors in residential neighborhoods) would allow the City to require odor emitting uses to be located at a distance from residences, thereby reducing the impact to less than significant.

The Pleasanton Transfer Station and Recycling Center is located within the Plan Area. A public information request was submitted to BAAQMD for odor complaints within the 3 years prior to issuance of the NOP for this project. A review of the odor complaint record showed 11 unconfirmed complaints and zero confirmed complaints; none of the 11 unconfirmed complaints were for the existing Transfer Station and Recycling Center.

The Pleasanton Transfer Station and Recycling Center has indicated that over the long-term, it will work with the City and adjacent property owners regarding potential relocation of the facility. The Specific Plan requires that future adjacent residential development along the southern and eastern boundaries of the site (located in the predominate air flow direction) are to be screened by the construction of streets that extend along the Center's southern and eastern boundaries. In addition, a minimum 20-foot-wide bermed and densely landscaped buffer is to be constructed between the street edges and the site. The western boundary of the site would be screened by the north/south open space spine, and the northern boundary would be screened by Busch Road. These screening measures would increase the distance of potential odor receptors from the odor source. In addition, City General Plan Air Quality and Climate Change Element Policy 8 requires a minimization of unpleasant odors in residential neighborhoods. The facility is also subject to BAAQMD regulation and enforcement action. Specifically, Regulation 1, Section 301, states:

No person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause injury or damage to business or property.

For the purposes of this section, three or more notice of violations validly issued in a 30-day period to a facility for public nuisance shall give rise to a refutable presumption that the violations resulted from negligent conduct.

Finally, BAAQMD enforces Regulation 7 (Odorous Substances), which places general limitations on odorous substances and specific emission limitations on certain odorous compounds. The limitations of Regulation 7 become effective when the BAAQMD receives odor complaints from ten or more complainants within a 90-day period.

Implementation and enforcement of BAAQMD regulations, city policies, and the Specific Plan buffers reduce this impact to less than significant.



**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

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## 3.3 - Biological Resources

### 3.3.1 - Introduction

This section describes the natural resources present in the Plan Area and includes a discussion of the special-status species and sensitive habitats that could potentially occur. This section analyzes impacts that could occur to biological resources due to Base Plan implementation, and includes appropriate mitigation measures to reduce or avoid these impacts. The analysis of biological resources presented in this section is based on a review of the most current project description, data collected from a reconnaissance-level survey, maps, previous biological investigations and reports, including an Initial Study/Mitigated Negative Declaration prepared for the Zone 7 Water Agency's Cope Lake Improvements and Maintenance (2011), as well as available literature from federal, state, and local agencies. Related discussions are found in Section 3.9, Land Use and Section 3.8, Hydrology and Water Quality.

As of January 1, 2013, the agency formerly known as the California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW). Some publications written prior to the change refer to the CDFG; therefore, this document includes citations to CDFG and CDFW, referring to the same state agency.

### 3.3.2 - Environmental Setting

#### Vegetation Communities/Habitat Type

The Plan Area reflects extensive disturbance from aggregate mining, reclamation, and industrial uses. According to site reconnaissance performed by an FCS staff biologist, the biological survey area contains eleven habitat types including perennial stream, riparian woodland, riparian scrub, coyote brush scrub, ornamental oak woodland, eucalyptus, tamarisk scrub, non-native annual grassland, open water, disturbed, and developed areas. Exhibit 3.3-1 depicts the extent of each vegetation type and Table 3.3-1 summarizes the acreage.

**Table 3.3-1: Acres of Vegetation Types within the Plan Area**

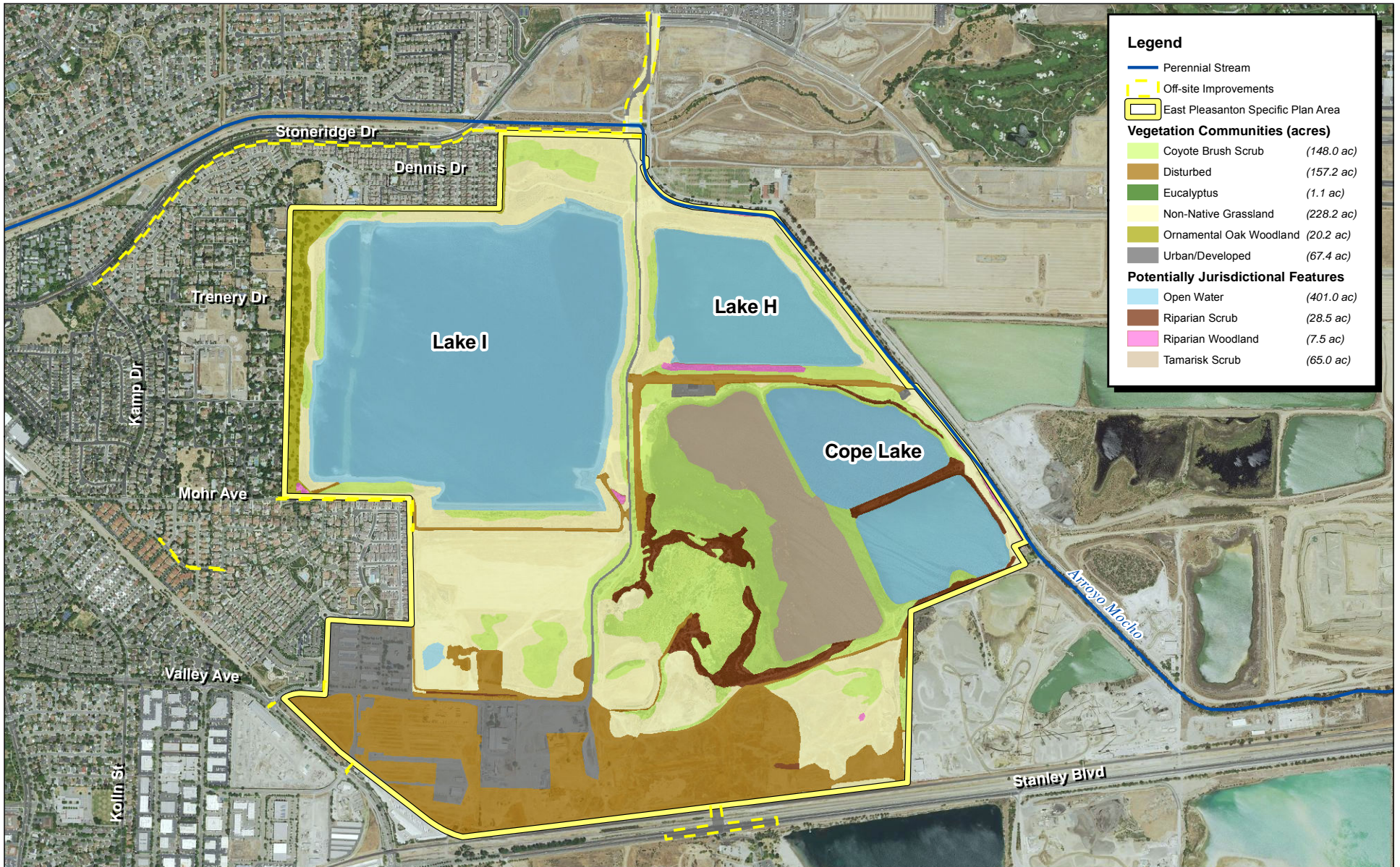
Vegetation Community/Habitat Type	Acreage within the Plan Area
Non-native annual grassland	228.2
Coyote brush scrub	148.0
Disturbed	157.2
Developed areas	67.4
Ornamental oak woodland	20.2
Eucalyptus	1.1
<b>Potential Jurisdictional Waters, Including Wetlands</b>	
Open water	401.0
Tamarisk scrub	65.0
Riparian scrub	28.5
Riparian woodland	7.5
<i>Subtotal of Potential Jurisdictional Waters</i>	<i>502.0</i>
<b>Total</b>	<b>1,124.1<sup>1</sup></b>
Notes: All acreages are approximate. <sup>1</sup> Total acreage includes offsite infrastructure areas. Source: FCS, 2013.	

### ***Non-native Annual Grassland***

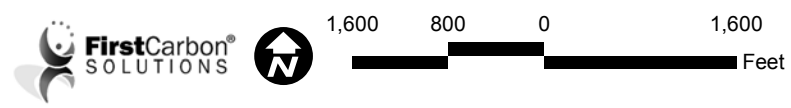
According to a reconnaissance-level survey conducted in 2012, approximately 228.2 acres of non-native annual grassland occur within the Plan Area. This vegetative type is the dominant upland plant community, consisting predominantly of non-native grasses and forbs such as ripgut brome (*Bromus diandrus*), wild oat (*Avena barbata*), Italian wild rye (*Lolium perenne* ssp. *multiflorum*), Harding grass (*Phalaris aquatic*), soft brome (*Bromus hordaceus*), and foxtail barley (*Hordeum jubatum*). Non-native forbs observed included Italian thistle (*Carduus pycnocephalus*), field mustard (*Brassica rapa*), milk thistle (*Silybum marianum*), stinkwort (*Dittrichia graveolens*), and yellow-star thistle (*Centaurea solstitialis*).

### ***Coyote Brush Scrub***

Approximately 148.0 acres of coyote brush scrub occurs in upland areas throughout the Plan Area including on the upper banks of Lake I, and Lake H. There are larger stands in the areas south of Lake I and in the south center of the Plan area, south of Lake H. Coyote brush (*Baccharis pilularis*) is the dominant species within the scrub area, and some California buckwheat (*Eriogonum fasciculatum*) also were observed. Other species observed in this vegetative type include non-native grasses and forbs such as wild oat, Harding grass, red brome (*Bromus madritensis*), rattail fescue (*Vulpia myuros*), field mustard, Italian thistle, and stinkwort.



Source: ESRI Imagery



## Exhibit 3.3-1 Vegetation Communities

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### **Disturbed**

Approximately 157.2 acres of disturbed areas occur within the Plan Area, the majority of which occur along Stanley Boulevard and Valley Avenue where gravel operations were previously conducted. The disturbed areas are characterized by bare soil and gravel with some scattered non-native weedy species. Plants observed within the disturbed areas include tree tobacco (*Nicotiana glauca*), telegraph weed (*Heterotheca grandiflora*), horseweed (*Conyza canadensis*), and yellow star thistle.

### **Developed**

Approximately 67.4-acres of the Plan Area are currently developed, including the Zone 7 pumping facility, the City of Pleasanton Operations Services Center, the Pleasanton Transfer Station and Recycling Center, and several vacant building sites associated with former mining activities. The developed areas have associated landscaping including lily of the Nile (*Agapanthus africanus*), crepe myrtle (*Lagerstroemia* sp.), Mexican fan palm (*Washingtonia robusta*), bottlebrush (*Callistemon rigidus*), century plant (*Agave americana*), and myoporum (*Myoporum laetum*).

### **Ornamental Oak Woodland**

Approximately 20.2 acres of the Plan Area contains ornamental oak woodland. The area directly west of Lake I contains several planted coast live oak trees (*Quercus agrifolia*) adjacent to a walking trail. The understory is dominated by non-native grassland species.

### **Eucalyptus**

Approximately 1.1 acres of blue gum eucalyptus (*Eucalyptus globulus*) is found along the southern limits of the Plan Area and has a non-native grass and forb understory. This vegetation community is identified as a standalone vegetation community as it may provide nesting habitat for a variety of raptors and other migratory bird species.

## **Potential Jurisdictional Waters, Including Wetlands**

### **Open Water**

Lake H, Lake I, and Cope Lake include approximately 401.0 acres of open water. These water features could be considered jurisdictional wetlands or other waters of the U.S. by the United States Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB)

Wildlife activity within the lakes was very high with several species of birds observed. Small areas along the edge of the open water contain emergent vegetation, including California bulrush (*Schoenoplectus californicus*) and cattails (*Typha* sp.). These emergent areas vary depending on the water level of the lakes.

### **Tamarisk Scrub**

Approximately 65.0 acres of tamarisk scrub occurs in a depressed area along the western edge of Cope Lake. At the time of the 2012 survey, this area was dominated by tamarisk (*Tamarisk ramosissima*) and Russian thistle (*Salsola tragus*). While tamarisk is a non-native species, it is still considered a facultative wetland indicator, meaning that it commonly occurs as either a hydrophyte or non-hydrophyte. The tamarisk scrub area is commonly flooded and may have the potential to be

jurisdictional under California Department of Fish and Wildlife (CDFW), USACE, and the Regional Water Quality Control Board (RWQCB).

### **Riparian Scrub**

Approximately 28.5 acres of riparian scrub occurs to the west of Cope Lake, as well as along the eastern and southern banks of Cope Lake and throughout the peninsula that bisects it. Species commonly observed included several arroyo willow (*Salix lasiolepis*), narrow leaved willow (*Salix exigua*), Fremont cottonwood (*Populus fremontii*), tamarisk, mulefat (*Baccharis salicifolia*), and scattered coyote brush. In addition to tree and shrub species, several non-native forb species were observed in this vegetative type including wild oat, Harding grass, rattail fescue, soft brome, and Italian thistle.

Areas of riparian scrub have the potential to be jurisdictional under CDFW, USACE, and RWQCB. Any future development within this area will be subject to federal, state, and local regulations pertaining to the protection of riparian habitat, including requirements to obtain permits and fully mitigate any potential impacts.

### **Riparian Woodland**

Approximately 7.5 acres of riparian woodland occur within the Plan Area. The riparian area along Arroyo Mocho is highly disturbed and contains several non-native species. The southwest bank of Arroyo Mocho along the eastern Plan Area boundary is dominated by an overstory of gum trees (*Eucalyptus* sp.) with herbaceous vegetation such as mulefat, poison hemlock (*Conium maculatum*), Harding grass, and smilo grass (*Piptatherum miliaceum*). Other trees and shrubs observed in this community included California walnut (*Juglans californica*), edible fig (*Ficus carica*), and blue elderberry (*Sambucus mexicana*). This grove of eucalyptus trees runs above the southwestern bank of Arroyo Mocho along the Plan Area's eastern boundary and along an old dirt road above the eastern side of Cope Lake. Farther up on the bank and above the dirt road the overstory includes Monterey pine (*Pinus radiata*) trees. The understory in this area also changes to predominantly non-native grasses and forbs including wild oat, ripgut brome, foxtail barley, Harding grass, milk thistle (*Silybum marianum*), and Italian thistle.

Areas of riparian woodland have the potential to be jurisdictional under the CDFW, USACE, and the RWQCB.

### **Perennial Stream**

One perennial stream, Arroyo Mocho, runs adjacent to the Plan Area along its northern and eastern edges. Only a small portion of Arroyo Mocho occurs within the Plan Area near the El Charro Road crossing (considered as an off-site improvement as reflected on Exhibits 2-9, 2-10, and 3.3-1).

Near the Plan Area, Arroyo Mocho is confined concrete levees. Surface water in Arroyo Mocho consists of both natural and artificial flow. Natural flow is often limited to winter and spring (wet) months. Artificial flow includes both releases from the South Bay Aqueduct made for the purposes of groundwater recharge, and releases from mining activities. The artificial releases can be sporadic, made only when water is available for groundwater recharge, or when there is ample mining activity requiring discharge of groundwater (Zone 7 Water Agency 2011). In 2003, Zone 7 constructed two



fish ladders at the northeastern corner of the Plan Area, as part of a project that widened, realigned, and restored the confluence of Arroyo Mocho and Arroyo Las Positas in Livermore. Zone 7 removed existing concrete barriers, added the ladders to steep sections of the creek, restored to a more natural stream channel, planted native vegetation, and generally enhanced wildlife habitat. The ladders will allow central California coast steelhead trout to access spawning and rearing habitat in Arroyo Mocho when barriers in lower Alameda Creek are removed (Alameda Creek Alliance 2003).

### Common Wildlife

Wildlife within the Plan Area includes animals that are adapted to living in urban areas, as well as animals that prefer lakes and riparian areas. Observed mammals or mammal signs such as scat or tracks include black-tailed deer (*Odocoileus hemionus*), coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*), raccoon (*Procyon lotor*), opossum (*Didelphus virginiana*), and fox squirrel (*Sciurus niger*). Bird activity was very high at the time of the survey. Birds associated with the lakes include American coot (*Fulica americana*), mallard (*Anas platyrhynchos*), bufflehead (*Bucephala albeola*), ruddy duck (*Oxyura jamaicensis*), western grebe (*Aechmophorus occidentalis*), American white pelican (*Pelecanus erythrorhynchos*), double-crested cormorant (*Phalacrocorax auritus*), snowy egret (*Egretta thula*), osprey (*Pandion haliaetus*), black-necked stilt (*Himantopus mexicanus*), and California gull (*Larus californicus*). Birds observed in the riparian and upland areas include house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), rock dove (*Columba livia*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), killdeer (*Charadrius vociferus*), black phoebe (*Sayornis nigricans*), red-winged blackbird (*Agelaius phoeniceus*), Brewer's blackbird (*Euphagus cyanocephalus*), northern harrier (*Circus cyaneus*), sharp-shinned hawk (*Accipiter striatus*), red-tailed hawk (*Buteo jamaicensis*), and turkey vulture (*Cathartes aura*). Western fence lizard (*Sceloporus occidentalis*) was the only reptile species observed.

### Listed and Special-Status Plants and Wildlife

The following discussion describes the plant and animal species in the Plan Area that have been afforded special recognition by federal, state, or local resource agencies or organizations. Listed and special-status species are of relatively limited distribution and may require specialized habitat conditions. Listed and special-status species are defined as follows:

- Listed or proposed for listing under the state or federal Endangered Species acts;
- Protected under other regulations (e.g. Migratory Bird Treaty Act);
- CDFW Species of Special Concern;
- Listed as species of concern by the California Native Plant Society (CNPS), U.S. Fish and Wildlife Service (USFWS), or CDFW; or,
- Any species identified as sensitive or special status in a local or regional plan.

Special-status species were included in this analysis based on field survey results, a review of the California Natural Diversity Database (CNDDB), USFWS, and CNPS databases, and consideration of habitats found within the Plan Area. A complete list of special-status species from the database searches is located in Table 3.3-2 (plants) and Table 3.3-3 (wildlife), and includes the rationale for

why each species was considered in this impact analysis. No special-status species were identified onsite during site visits.

### ***Special-Status Plant Species***

Based on a search of the CNDDDB (CDFW 2013) and the CNPS Inventory (CNPS 2013) and USFWS (USFWS 2013a), 12 special-status plant species are known to occur in the project region. The Plan Area lacks suitable habitat for most of these species, such as a need for serpentine soils and/or certain plant communities (e.g., chaparral, seeps, and vernal pools).

No special-status plants were observed during a June 7, 2011 reconnaissance-level survey conducted for an Initial Study/Mitigated Negative Declaration for Zone 7 within the Cope Lake area (Zone 7 Water Agency 2011), or during the October 2, 2012 reconnaissance-level survey by FCS. However, the Plan Area supports habitat for six special-status plant species including heartscale (*Atriplex cordulata* var. *cordulata*), brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Atriplex joaquiniana*), lesser saltscale (*Atriplex minusclua*), Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), and palmate-bracted bird'sbeak (*Chloropyron [Cordylanthus] palmatus*). Table 3.3-2 provides a description of habitat and blooming period for these species.

**Table 3.3-2: Summary of Special-Status Plant Species Review**

Scientific Name Common Name	Listing Status* USFWS/ CDFW/CNPS	General Habitat Description	Potential for Presence**	Period of Identification
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	—/—/1B.2	Playas and grasslands with adobe clay soils and alkaline vernal pools.	<b>Low</b> There are no suitable natural habitats within the EPSP Area.	March–June
<i>Atriplex cordulata</i> var. <i>cordulata</i> Heartscale	—/—/1B.2	Alkali grasslands, alkali meadows, alkali scrublands at elevations from msl to 660 feet. 0 to 300 meters in elevation.	<b>Moderate</b> Annual grassland habitat within study area is highly disturbed.	May–October
<i>Atriplex depressa</i> Brittlescale	—/—/1B.2	Alkali grasslands, alkali meadows, alkali scrublands, chenopod scrublands, playas, valley and foothill grasslands; on alkaline or clay soils. 0 to 330 meters in elevation.	<b>Moderate</b> Annual grassland habitat within study area is highly disturbed.	May–October
<i>Atriplex joaquiniana</i> San Joaquin spearscale	—/—/1B.2	Alkali grasslands, alkali scrublands, alkali meadows, saltbush scrublands	<b>Moderate</b> Annual grassland habitat within study area is highly disturbed.	April–September
<i>Atriplex minusclua</i> Lesser saltscale	—/—/1B.1	Alkali grasslands, alkali scrublands, alkali meadows, saltbush scrublands	<b>Moderate</b> Annual grassland habitat within study area is highly disturbed.	April–September
<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i> Big-scale balsamroot	—/—/1B.2	Cismontane woodland and valley and foothill grassland with serpentine soils	<b>None</b> There are no suitable serpentine soils within the EPSP Area.	March–June
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon’s tarplant	—/—/1B.2	Lower slopes, flats, and swales in annual grasslands; locally on alkaline or saline soils. 0 to 350 meters in elevation.	<b>Moderate</b> Annual grassland habitat within study area is highly disturbed.	May–July
<i>Chloropyron (Cordylanthus) palmatus</i> Palmate-bracted bird’s beak	FE/CE/1B.1	Alkali grasslands, alkali meadows, and chenopod scrublands	<b>Moderate</b> Annual grassland habitat within study area is highly disturbed.	May–October
<i>Navarretia prostrata</i> Prostrate vernal pool navarretia	—/—/1B.1	Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools	<b>Low</b> Minimal suitable wet habitat (marshes, swamps, vernal pools) exists within EPSP Area: annual grassland habitat within the EPSP Area is highly disturbed.	April–May

**Table 3.3-2 (cont.): Summary of Special-Status Plant Species Review**

Scientific Name Common Name	Listing Status* USFWS/ CDFW/CNPS	General Habitat Description	Potential for Presence**	Period of Identification
<i>Plagiobothrys glaber</i> Hairless popcorn-flower	—/—/1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools	<b>Low</b> Minimal suitable wet habitat (marshes, swamps, vernal pools) exists within EPSP Area: annual grassland habitat within the EPSP Area is highly disturbed.	April–May
<i>Trifolium depauperatum</i> var. <i>hydrophilum</i> Saline clover	—/—/1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools	<b>Low</b> Minimal suitable wet habitat (marshes, swamps, vernal pools) exists within EPSP Area: annual grassland habitat within the EPSP Area is highly disturbed.	April–June
<i>Tropidocarpum capparideum</i> Caper-fruited tropidocarpum	—/—/1B.1	Grows in low, alkaline grasslands of hillsides or valleys.	<b>Low</b> Annual grassland habitat within study area is highly disturbed. It was found historically in Contra Costa, Alameda, Santa Clara, and San Joaquin counties. This plant has not been seen for nearly 50 years.	March–April
<b>*Status Codes</b>				
<b>Federal</b> FE = Federally Endangered FT = Federally Threatened FD = Federally Delisted	<b>State</b> CE = State Endangered CT = State Threatened SSC = State Species of Special Concern	<b>CNPS</b> 1A = Presumed extinct in California 1B.X = Rare, threatened, or endangered in California and elsewhere 2.X = Rare, threatened, or endangered in California, but more common elsewhere Threat rank: 0.1 = Seriously threatened in California 0.2 = Fairly threatened in California 0.3 = Not very threatened in California		
<b>**Potential for Presence</b>				
<p><b>High</b> = Species was observed, or suitable habitat is present and the species has been recorded recently within or adjacent to the EPSP Area.  <b>Moderate</b> = Species is locally common and suitable habitat is present.  <b>Low</b> = Habitat is marginal, or suitable habitat is present but species is rare or locally uncommon.  <b>Very Low</b> = Habitat is poor or absent, or species is very rare and has not been recorded within 2 miles of the EPSP Area.  <b>None</b> = Habitat is absent and/or site is not within range of this species.                      Source: California Natural Diversity Database, 2013.</p>				

**Table 3.3-3: Summary of Special-Status Wildlife Species Review**

Scientific Name Common name	Listing Status USFWS/ CDFW/WBWWG	General Habitat Description	Potential for Presence	Period of Identification
<b>Invertebrates</b>				
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	FE/—/—	Vernal pools, swales, and ephemeral freshwater habitats.	<b>None</b> There is no suitable habitat in the EPSP Area. There are no occurrences within 5 miles of the EPSP Area.	Year-round
<i>Branchinecta longiantenna</i> Longhorn fairy shrimp	FE/—/—	Large, deep vernal pools in annual grasslands	<b>None</b> There is no suitable habitat in the EPSP Area. There are no occurrences within 5 miles of the EPSP Area.	
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT/—/—	Common in vernal pools; also found in sandstone rock outcrop pools	<b>None</b> There is no suitable habitat in the EPSP Area. There are no occurrences within 5 miles of the EPSP Area.	
<b>Fishes</b>				
<i>Hypomesus transpacificus</i> Delta smelt	FT/CT/—	Sacramento-San Joaquin Delta.	<b>None</b> There is no suitable habitat in the EPSP Area. There are no occurrences within 5 miles of the EPSP Area.	Year-round
<i>Oncorhynchus mykiss</i> Central Valley steelhead	FT/—/—	Sacramento and San Joaquin rivers and their tributaries.	<b>None</b> There is no suitable habitat in the EPSP Area. There are no occurrences within 5 miles of the EPSP Area.	Year-round
<i>Oncorhynchus tshawytscha</i> Central Valley spring-run chinook	FT/CT/—	Sacramento and San Joaquin rivers and their tributaries.	<b>None</b> There is no suitable habitat in the EPSP Area. There are no occurrences within 5 miles of the EPSP Area.	Year-round
<i>Oncorhynchus tshawytscha</i> Central Valley winter-run chinook	FE/CE/—	Sacramento and San Joaquin rivers and their tributaries.	<b>None</b> There is no suitable habitat in the EPSP Area. There are no occurrences within 5 miles of the EPSP Area.	Year-round

**Table 3.3-3 (cont.): Summary of Special-Status Wildlife Species Review**

Scientific Name Common name	Listing Status USFWS/ CDFW/WBWG	General Habitat Description	Potential for Presence	Period of Identification
<b>Amphibians</b>				
<i>Ambystoma californiense</i> California tiger salamander	FT/CT/—	Annual grassland habitat and grassy understory of valley-foothill hardwood habitats. Uncommon along streamcourses in valley-foothill riparian habitats. Adults spend most of the year in subterranean refugia, especially burrows of California ground squirrels. Migrate to vernal pools and other temporary rainwater ponds to breed and lay eggs.	<b>Moderate</b> The EPSP Area contains suitable migration habitat. The site has been significantly disturbed in the past and is isolated from other habitat areas by development and roads. All CNDDDB records in the vicinity are from 1936.	March to May (aquatic larval sampling) October through winter (drift fence surveys)
<i>Rana boylei</i> Foothill yellow-legged frog	—/CSC/—	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	<b>None</b> There is currently no potential for foothill yellow-legged frog to occur in the EPSP Area, as the portion of Arroyo Mocho that runs through the EPSP Area has been significantly altered and channelized. There are no CNDDDB occurrences within 2 miles of the study area (2013).	April–July (breeding season survey)
<i>Rana draytonii</i> California red-legged frog	FT/CSC/—	Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent vegetation.	<b>Moderate</b> There is suitable aquatic habitat within the water quality basins (i.e., Cope Lake, Lake H, and Lake I) and upland dispersal habitat. The nearest occurrence is 1.09 miles northeast of study area (CNDDDB 2013). The site has been historically disturbed by quarrying activities and is relatively isolated by active quarries, commercial development, and a busy road (El Charro Road), which reduces the likelihood for this species to occur within the EPSP Area. No breeding habitat (pools) was observed within Arroyo Mocho and the stream has been historically disturbed.	January–February (breeding season survey)

**Table 3.3-3 (cont.): Summary of Special-Status Wildlife Species Review**

Scientific Name Common name	Listing Status USFWS/ CDFW/WBWG	General Habitat Description	Potential for Presence	Period of Identification
<b>Reptiles</b>				
<i>Actinemys marmorata</i> Western pond turtle	—/CSC/—	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg laying. May move overland up to 325 feet for egg laying.	<b>Moderate</b> The lakes (Cope Lake, Lake H, and Lake I) and Arroyo Mocho represent suitable aquatic habitat, and suitable upland migration habitat occurs within the uplands of the EPSP Area. There are no CNDDDB occurrences within 2 miles of the EPSP Area (CNDDDB 2013).	Year-round
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	FT/CT/—	Valleys, foothills, and low mountains associated with northern coastal scrub or chaparral habitat; requires rock outcrops for cover and foraging	<b>None</b> No suitable habitat present, and EPSP Area is surrounded by former quarries that have been converted to ponds. There are no CNDDDB occurrences within 2 miles of the site (2013).	Year-round
<b>Birds</b>				
<i>Agelaius tricolor</i> Tricolored blackbird	—/CSC/—	Largely endemic to California, most numerous in the Central Valley and nearby vicinity. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Feeds in grassland and cropland habitats.	<b>Moderate</b> There is suitable marsh habitat immediately adjacent to the EPSP Area, species observed ~0.21-mile south of the study area (CNDDDB 2013)	April–July
<i>Athene cunicularia</i> Burrowing owl	—/CSC/—	Open, dry annual or perennial grasslands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals.	<b>Moderate</b> There may be suitable habitat within the grasslands and disturbed areas.	December 1 to January 31 and April 15 to July 15

**Table 3.3-3 (cont.): Summary of Special-Status Wildlife Species Review**

Scientific Name Common name	Listing Status USFWS/ CDFW/WBVG	General Habitat Description	Potential for Presence	Period of Identification
<i>Circus cyaneus</i> Northern harrier	—/CSC/—	Winter resident throughout most of the state; year-round in the Central Valley and Coast Range. Forages in marshes, grasslands, and ruderal habitats; nests in extensive marshes and wet fields or grasslands.	<b>High</b> Suitable habitat within the grasslands and disturbed areas. Species observed within the EPSP Area.	April to September (breeding)
<i>Elanus leucurus</i> White-tailed kite	—/CFP/—	Year-round resident. Nests or roosts in dense, broad-leaved deciduous trees. Forages in herbaceous lowlands with variable tree growth and dense populations of voles.	<b>Moderate</b> Suitable habitat within the grasslands and disturbed areas.	January to August (breeding)
<i>Sterna antillarum browni</i> California least tern	FE/CE/—	Forages primarily in shallow estuaries and lagoons, where smaller fishes are abundant.	<b>None</b> No suitable habitat present.	April to September (breeding)
<b>Mammals</b>				
<i>Antrozous pallidus</i> Pallid bat	—/CSC/High	Occurs in a variety of habitats throughout the state to 6,000 feet in elevation. It is most abundant in xeric ecosystems. Pallid bats roost alone, and in both large and small groups. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees, and human structures such as bridges, barns, porches, bat boxes, and buildings. This species also has been found roosting on or near the ground under stone piles, rags, and baseboards. Pallid bat is a gregarious species and often roost in colonies of 20 to several hundred individuals. Non-migratory. Hibernates during winter, with very little activity.	<b>Moderate</b> Suitable roosting habitat present within snags in the eastern portion of the EPSP Area adjacent to Arroyo Mocho. There are no CNDDDB occurrences within 2 miles of the site (2013).	April to October



**Table 3.3-3 (cont.): Summary of Special-Status Wildlife Species Review**

Scientific Name Common name	Listing Status USFWS/ CDFW/WBWG	General Habitat Description	Potential for Presence	Period of Identification
<i>Taxidea taxus</i> American badger	—/CSC/—	Herbaceous, shrub, and open stages of most habitats with dry, friable soils.	<b>None</b> The EPSP Area is surrounded by residential development, busy roads (e.g., Stanley and El Charro Roads), water quality basins and the undeveloped portion is too small to support this species or a suitable prey-base. There are no CNDDDB occurrences within 2 miles of the site (2013).	Year-round
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE/CT/—	Occur in annual grasslands or grassy open stages of vegetation dominated by scattered brush, shrubs, and scrub with loose-textured, sandy, and loamy soils.	<b>None</b> The EPSP Area is not within species' geographic range. There are no recorded occurrences of this species within 5 miles of the project.	Year-round
<b>Status Codes</b>				
<b>Federal</b> FE = Federally Endangered FT = Federally Threatened FD = Federally Delisted		<b>State</b> CE = State Endangered CT = State Threatened CSC = State Species of Special Concern CC = State Candidate	<b>Western Bat Working Group - WBWG</b> High = Species imperiled or at high risk of imperilment. Medium = Lack of information prevents assessment of status and should be considered a threat.	
<b>**Potential for Presence</b>				
<p><b>High</b> = Species was observed, or suitable habitat is present and the species has been recorded recently within or adjacent to the EPSP Area.  <b>Moderate</b> = Species is locally common and suitable habitat is present.  <b>Low</b> = Habitat is marginal, or suitable habitat is present but species is rare or locally uncommon.  <b>Very Low</b> = Habitat is poor or absent, or species is very rare and has not been recorded within 2 miles of the EPSP Area.  <b>None</b> = Habitat is absent and/or site is not within the range of this species.                      Source: California Natural Diversity Database, 2013.</p>				

### **Special-Status Wildlife Species**

There is suitable potential habitat for certain special-status wildlife species within the Plan Area. No special-status fish species occur in the project vicinity, although as previously discussed central California coast steelhead have the potential to occur in Arroyo Mocho once blockages to fish passage downstream of the site are removed. A list of potentially occurring special-status species was generated from the CNDDDB records search. These species were evaluated for their potential to occur in the Plan Area based on the results of previous studies and the reconnaissance-level assessment conducted on October 2, 2012. Exhibit 3.3-2 depicts the reported occurrences of special status species within a five-mile radius. Table 3.3-3 contains the list of special-status wildlife species, general habitat requirements, and potential to occur in the Plan Area.

Species that have a moderate to high potential to occur in the Plan Area and have a potential to be affected by the proposed project include the federally threatened California red-legged frog (*Rana draytonii*), the state and federally threatened California tiger salamander (*Ambystoma californiense*), and the following California state species of special concern: western pond turtle (*Actinemys marmorata*), pallid bat (*Antrozonus pallidus*), western burrowing owl (*Athene cunicularia*), tricolored blackbird (*Agelaius tricolor*), northern harrier (*Circus cyaneus*), and the California fully protected white-tailed kite (*Elanus leucurus*). The Plan Area also provides habitat for several other raptors and for migratory birds protected by the Migratory Bird Treaty Act.

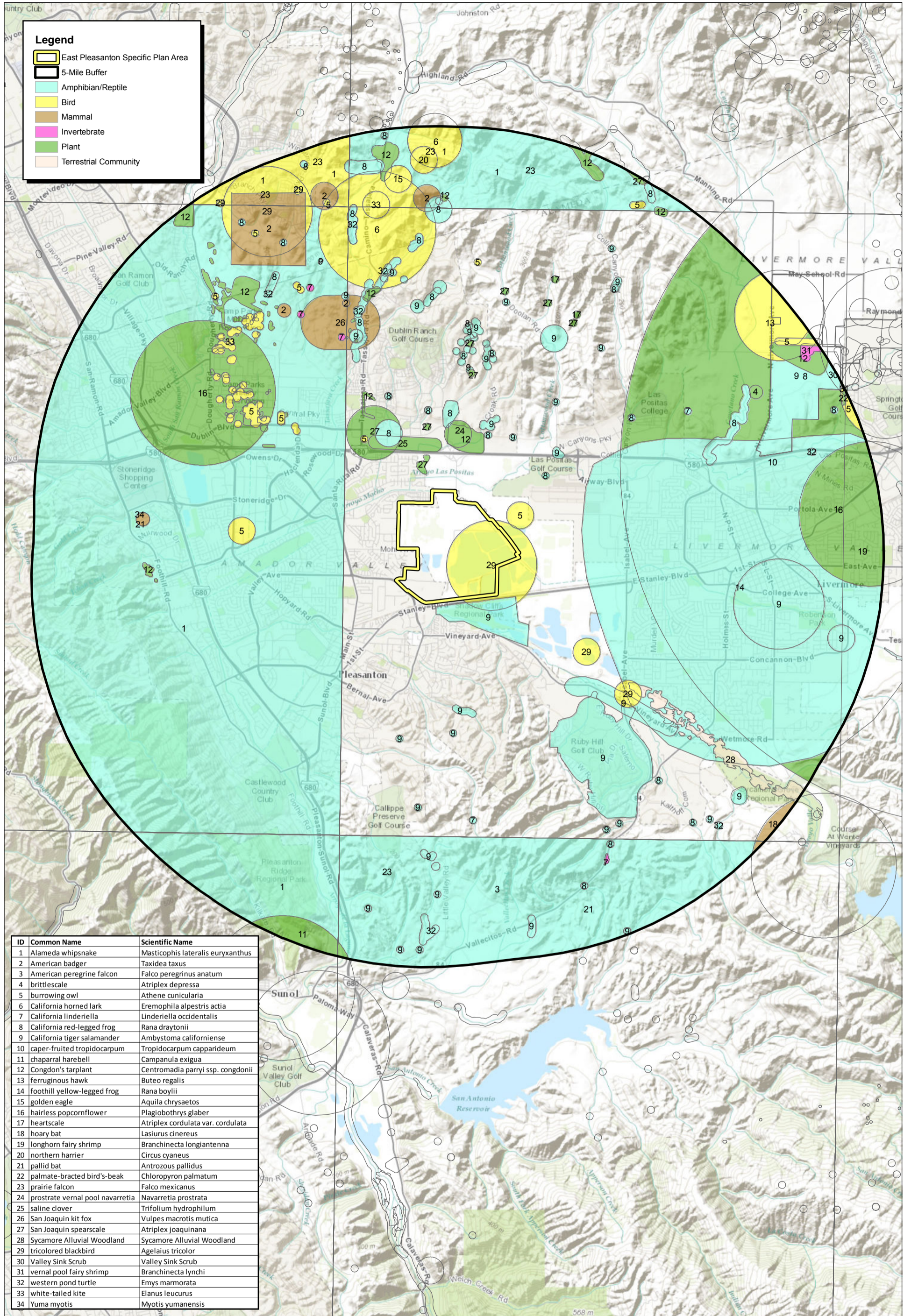
### **Sensitive Habitats**

Sensitive habitats include (a) areas of special concern to resource agencies, (b) areas protected under CEQA, (c) areas designated as sensitive natural communities by CDFW, (d) areas outlined in Section 1600 of the California Fish and Game Code, (e) areas regulated under Section 404 of the Federal Clean Water Act (CWA), and (f) areas protected under local regulations and policies. Sensitive habitats within the Plan Area include the riparian corridor along Arroyo Mocho and jurisdictional waters of the U.S., as regulated under Section 404 of the CWA.

Critical habitat for California red-legged frog, California tiger salamander, and Alameda whipsnake (*Masticophis lateralis euryxanthus*) are all within 5 miles of the Plan Area (USFWS 2013b). However, no critical habitat occurs within the Plan Area; therefore, no critical habitat would be affected by the project.

### **Wildlife Corridors**

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link otherwise fragmented acres of undisturbed area. Maintaining the continuity of established wildlife corridors is important to (a) sustain species with specific foraging requirements, (b) preserve a species' distribution potential, and (c) retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource. Existing riparian corridors along the creeks and drainages within and surrounding the Plan Area serve as aquatic and terrestrial wildlife migration corridors.



Source: ESRI, CNDDDB 2013

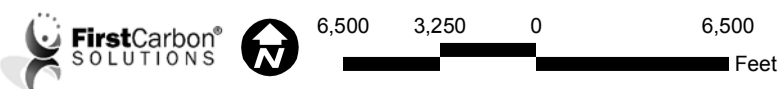


Exhibit 3.3-2  
CNDDDB-Recorded Occurrences within  
Five Miles of the East Pleasanton Specific Plan Area

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### *Resident Wildlife*

In addition to numerous species of special concern, the Plan Area may support a large number of other common wildlife species. These include black-tailed deer, coyote, cottontail rabbit (*Sylvilagus floridanus*), jackrabbit, ground squirrel (*Otospermophilus beecheyi*), gray squirrel (*Sciurus carolinensis*), raccoon, ringtail (*Bassariscus astutus*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and numerous small rodents. Bird species within the Plan Area include California quail (*Callipepla californica*), wild turkey (*Meleagris gallopavo*), and numerous other species of passerines and waterfowl. Although these species are not listed as species of special concern, they may still require special attention, particularly because of the extent of the Plan Area and the potential for subsequent development to affect habitat for the species listed above.

## **3.3.3 - Regulatory Framework**

### **Federal**

#### ***Clean Water Act***

Section 404 of the Clean Water Act (CWA) of 1977 provides the basis for regulating the preservation of wetlands and riparian habitats. The legislation addresses water pollution, establishes regulations and permit requirements regarding construction activities that affect stormwater, dredge and fill material operations, and water quality standards. This regulatory program requires that discharges to surface waters be controlled under the National Pollutant Discharge Elimination System permit program, which applies to sources of water runoff, private developments, and public facilities. Under Section 404 of the Clean Water Act, the USACE is responsible for regulating the discharge of fill material into waters of the United States. The term “waters” includes wetlands and non-wetland bodies of water that meet specific criteria as defined in the Code of Federal Regulations. All three of the identified technical criteria must be met for an area to be identified as a wetland under USACE jurisdiction, unless the area has been modified by human activity. In general, a permit must be obtained before fill can be placed in wetlands or other waters of the U.S. The type of permit depends on the amount of acreage and the purpose of the proposed fill, subject to USACE discretion.

#### ***Endangered Species Act***

The USFWS and National Oceanic and Atmospheric Association (NOAA) Fisheries have jurisdiction over species that are formally listed as threatened or endangered under the federal Endangered Species Act (ESA). The federal ESA is a complex law enacted in 1973 to protect plant and animal species in danger of becoming extinct and to conserve their ecosystems, with an ultimate goal being the recovery of a species to the point where it is no longer in need of protection. An endangered plant or animal species is one that is considered in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future. The USFWS also maintains a list of species proposed for listing as endangered or threatened, and a list of candidate species for which sufficient information is available to support issuance of a proposed listing rule. It is illegal to take any listed species without specific authorization. Any activity that could result in the take of a federally listed species requires a Section 10 take permit authorization from the USFWS or NMFS. Should another federal agency be involved with permitting the project, such as the USACE under jurisdiction of the Clean Water Act, Section 7 of the ESA requires the federal lead agency to consult with the USFWS or NMFS before

permitting any activity that may result in take of a listed species. Section 9 of the ESA and its applicable regulations restrict certain activities with respect to endangered and threatened plants. However, these restrictions are less stringent than those applicable to fish and wildlife species. The provisions prohibit the removal of, malicious damage to, or destruction of any listed plant species from areas under federal jurisdiction.

### ***Migratory Bird Treaty Act***

The Federal Migratory Bird Treaty Act (MBTA) provides for protection of migratory bird species, birds in danger of extinction, and their active nests. It is illegal to possess or take any bird protected under the act without a depredation permit from the USFWS, which includes protection of eggs, young, and nests in active use. Although the MBTA technically provides for protection of most bird species, it is typically applied as a mechanism to protect active nests of raptors and colonial nesting species through the breeding and nesting season.

## **State**

### ***California Endangered Species Act***

Signed into law in 1984, the California Endangered Species Act (CESA) prohibits the “take” of any species that the California Fish and Game Commission determines to be an endangered species or a threatened species. CESA defines a “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CDFW enforces CESA. The act allows for take incidental to otherwise lawful development projects. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats.

### ***Porter-Cologne Act***

The Porter-Cologne Act established the California State Water Quality Resources Control Board and the Nine RWQCBs in their current form. The RWQCBs regulate all activities, including dredging, filling, or discharge of materials into waters of the State that are not regulated by the USACE, due to a lack of connectivity with a navigable water body and/or lack of an ordinary high water mark (OHWM).

### ***CDFW Section 1600 Regulations***

The California Fish and Game Code mandates that “it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity.” CDFW’s jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) characterized by (1) the presence of hydrophytic vegetation, (2) the location of definable bed and banks, and (3) the presence of existing fish or wildlife resources.

Furthermore, CDFW jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear, but re-emerge elsewhere. Under the CDFW definition, a watercourse need not exhibit

evidence of an OHWM to be claimed as jurisdiction. However, CDFW does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake.

## Local

### *City of Pleasanton*

#### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs related to biological resources:

#### **Conservation and Open Space Element**

- **Goal 1:** Practice sustainability to preserve and protect natural resources and open space.
- **Goal 2:** Preserve and enhance the natural resources of the Planning Area, including plant and wildlife habitats, heritage trees, scenic resources, and watercourses.
  - **Policy 1:** Preserve and enhance natural wildlife habitats and wildlife corridors.
    - **Program 1.2:** Identify land within the Planning Area, which could be reclaimed as viable wildlife habitat. Study methods to re-establish viable plant and animal communities in these areas.
    - **Program 1.3:** Preserve and enhance the resource value of wetlands through project development design measures. These measures should be based in part on jurisdictional wetlands delineation in accordance with current Army Corps of Engineers criteria, for projects which are known to have or that may have wetlands present within their boundaries.
    - **Program 1.6:** Analyze potential impacts on wildlife populations and habitats before developing projects, using the California Environmental Quality Act (CEQA) process or other processes, as relevant.
    - **Program 1.7:** Minimize active recreation – sports, games, exercising, and fishing – within natural habitat areas. Permit passive recreation such as hiking, bicycling, horseback riding, nature and cultural resource study, photography, and picnicking.
    - **Program 1.8:** Design site sensitive recreation or interpretive facilities to minimize intrusion within natural public open space. Limit public access, including hiking trails, into sensitive habitat areas, when warranted.
    - **Program 1.9:** Plant native species wherever possible in public and private landscaping, and provide wildlife habitat in new landscaping, where appropriate.
    - **Program 1.10:** Design storm retention and drainage ponds, groundwater-recharge areas, and watercourses as wildlife habitats, when appropriate and environmentally sound.
    - **Program 1.11:** Support the efforts of the Alameda Creek Fisheries Restoration Workgroup to restore native steelhead populations in Alameda Creek.
    - **Program 1.13:** Provide activities and educational opportunities related to preserving and enhancing natural resources and the environment.
  - **Policy 2:** Preserve heritage trees throughout the Planning Area.
    - **Program 2.1:** Strongly encourage preservation of heritage trees; where preservation is not feasible, the City will require tree replacement or a contribution to the Urban Forestry Fund. Allow no net loss of trees.

- **Program 2.2:** Follow the provisions of the City’s Heritage Tree Ordinance, Pleasanton Municipal Code Chapter 17.16, Tree Preservation, when reviewing future development projects.
- **Policy 3:** Preserve and enhance streambeds and channels in a natural state. (See also Policy 2 of the Water Element and its programs. Natural habitat areas are those that provide the natural environment and conditions for plants and/or animals to live. Natural open space is any public or private land or water that is unimproved and devoted to open-space use.)
- **Goal 3:** Promote natural resource production in accordance with sensitive environmental management practices.
  - **Policy 4:** Reserve all areas designated on the General Plan Map as Sand and Gravel Harvesting exclusively for the production of sand and gravel until such time as quarry operators have depleted the resources.
    - **Program 4.1:** Ensure that Sand and Gravel Harvesting areas are reclaimed and reused following the Specific Plan for the Livermore-Amador Valley Quarry Area Reclamation.
    - **Program 4.2:** Design natural open space areas adjacent to sand-and-gravel harvesting areas and Zone 7 water retention lakes to include a protective buffer zone, similar to that on the east side of Martin Avenue, particularly north of Mohr Avenue that are open to the public for recreational purposes.
    - **Program 4.3:** Incorporate waterfowl habitat into planning and reclaiming depleted sand and gravel quarry resources.

*City of Pleasanton Municipal Code*

The Pleasanton Heritage Tree Ordinance (City of Pleasanton Tree Preservation Ordinance Chapter 17.16) states that any existing trees shall be preserved if they meet the following criteria:

1. Any single-trunked tree with a circumference of fifty-five inches or more measured four and one half feet above ground level;
2. Any multi-trunked tree of which the two largest trunks have a circumference of fifty-five inches or more measured four and one half feet above ground level;
3. Any tree thirty-five feet or more in height;
4. Any tree of particular historical significance specifically designated by official action; or
5. A stand of trees the nature of which makes each dependent upon the other for survival or the area’s natural beauty.

However, trees meeting the above criteria may be removed on a limited basis with the permission of the Director of Community Development upon submittal of an arborist’s report which determines that the trees are in poor health and not likely to survive; if the trees constitute a high fire hazard or a threat to persons, structures, or property; or if they impede public works projects. Trees to be removed shall be shown on the Final Tree Report for individual development applications and shall be detailed on a tree inventory chart in that report.



### 3.3.4 - Methodology

#### Literature Search

The CDFW's CNDDDB was queried for a list of special-status wildlife, botanical, and fisheries resources with previously recorded occurrences in the Plan Area and vicinity (CDFG 2013a). The database search was performed for special-status species within the Livermore USGS 7.5-minute quadrangle. Appendix C includes a copy of the CNDDDB query results. Locations of previously recorded occurrences of special-status species as documented in CNDDDB are shown on Exhibit 3.3-2.

The CNPS inventory was also searched for rare or endangered plants that may occur within the Plan Area. This query was performed for CNPS List 1A, List 1B, and List 2 special-status plants occurring in the surrounding USGS 7.5-minute quadrangles listed above (CNPS 2013). List 1A species are presumed extinct in California. List 1B species are considered rare or endangered in California, but are more common elsewhere. List 2 species are considered rare, threatened, or endangered in California, but are more common elsewhere.

In addition, the USFWS list for the Livermore USGS 7.5 minute quadrangle was consulted for federally listed or candidate plant and wildlife species that could potentially be affected by the proposed action (USFWS 2013a). Appendix C includes a copy of the USFWS list.

Range and habitat information used to determine the potential for occurrence of special-status wildlife and plant species in the Plan Area was obtained from the California Wildlife Habitat Relationships (CWHR) program version 8 (CDFG 2002).

A complete list of special-status species from the database searches is located in Table 3.3-2 (plants) and Table 3.3-3 (wildlife) with rationale for why they were considered in this impact analysis.

The 2011 Initial Study/Mitigated Negative Declaration prepared for the Zone 7 Water Agency's Cope Lake Improvements and Maintenance was also reviewed for applicable information regarding the Cope Lake area.

#### Field Evaluation

Surveys were conducted by FCS biologists on October 2, 2012. Reconnaissance-level surveys were conducted by FCS biologist Dale Hameister to identify habitats within and surrounding the Plan Area, including potentially sensitive natural communities. Field investigations included a general inspection of the Plan Area with emphasis on areas having the potential to support special-status species. Plants and wildlife observed were consistent with common species that typically inhabit urban areas. Plant and wildlife species observed were noted. Habitat types were noted on an aerial photograph and digitized using ArcGIS software.

#### Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, biological resources impacts resulting from the implementation of the Base Plan would be considered significant if the project would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. (Refer to Section 7, Effects Found Not To Be Significant.)

## Impact Analysis

The following impact assessment is based on the Base Plan description, information described in the existing setting, the thresholds of significance described above, data collected from a reconnaissance-level survey, maps, as well as available literature from federal, state, and local agencies. The impact assessment addresses the Specific Plan on a programmatic level.

Because exact plans for development associated with the Specific Plan are premature at this conceptual phase of the planning process, a conservative approach was taken for the program-level analysis, in that it was assumed that all natural resources within areas targeted for development would be removed or otherwise modified by project activities.

Special-status species were considered for this analysis based on field survey results, a review of the CNDDDB, USFWS, and CNPS databases, and consideration of habitats found within the Plan Area. Federal- and state-listed and other special-status species that are known or expected to occur within the Plan Area are discussed below. Those special-status species that are considered in this analysis are listed in Table 3.3-4 according to habitat type. Species not considered in this analysis are not expected to occur either based on the known range of the species, or due to lack of suitable habitat. Exhibit 3.3-3 together with Table 3.3-4 indicate which parcels or offsite improvement areas have the potential to contain special-status species and summarize necessary mitigation as indicated in Section 3.3.5.

**Table 3.3-4: Special-status Species Considered in the Impact Analysis Organized by Habitat Type, Parcel, and Mitigation Measure**

Community/Habitat Type (Exhibit 3.3-1)	Special-Status Species Potentially Occurring within the Plan Area	Community/Habitat Type of Parcels and Offsite Improvement Areas (Exhibit 3.3-3)	Associated Mitigation Measures if Habitat is Disturbed/Impacted
Non-native annual grassland	Heartscale Brittlescale San Joaquin spearscale Lesser saltscale Congdon’s tarplant Palmate-bracted bird’s beak California tiger salamander (upland) California red-legged frog (upland) Burrowing owl Birds Protected by the MBTA	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 17, 20, 26, 27, 28, 29, A	MM BIO-1a–MM BIO-1c MM BIO-2a–MM BIO-2d MM BIO-3a–MM BIO-3b MM BIO-4b MM BIO-5
Coyote brush scrub	Birds Protected by the MBTA	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 26, 27, 28, 29	MM BIO-5
Disturbed	Birds Protected by the MBTA	1, 2, 3, 5, 7, 8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, 25, 28, 29, 30, D, G	MM BIO-5
Developed	Birds Protected by the MBTA Pallid bat	1, 2, 3, 9, 10, 12, 13, 14, 15, 16, 17, 18, 20, 21, 23, 24, 25, 28, 30, 31, A, B, C, D, E, F, G	MM BIO-4c MM BIO-5
Ornamental oak woodland	Birds Protected by the MBTA	1, 4, 5, 6, 12, 22	MM BIO-5
Eucalyptus	Birds Protected by the MBTA	17, 18	MM BIO-5
<b>Potential Jurisdictional Waters, Including Wetlands</b>			
Open water	Birds Protected by the MBTA	1, 2, 3, 4, 5, 7, 8, 10, 14, 26, 27, 28, A	MM BIO-5 MM BIO-6a–MM BIO-6d
Riparian scrub	Birds Protected by the MBTA	10, 11, 14, 15, 16, 17, 29	MM BIO-5 MM BIO-6a–MM BIO-6d
Tamarisk scrub	Birds Protected by the MBTA	10, 11	MM BIO-5 MM BIO-6a–MM BIO-6d
Riparian woodland	Western pond turtle California tiger salamander (aquatic) California red-legged frog (aquatic) Pallid bat Birds Protected by the MBTA	5, 6, 10, 12, 17, 27, 28, A	MM BIO-2a–MM BIO-2d MM BIO-3a–MM BIO-3b MM BIO-4a MM BIO-4c MM BIO-5 MM BIO-6a–MM BIO-6d

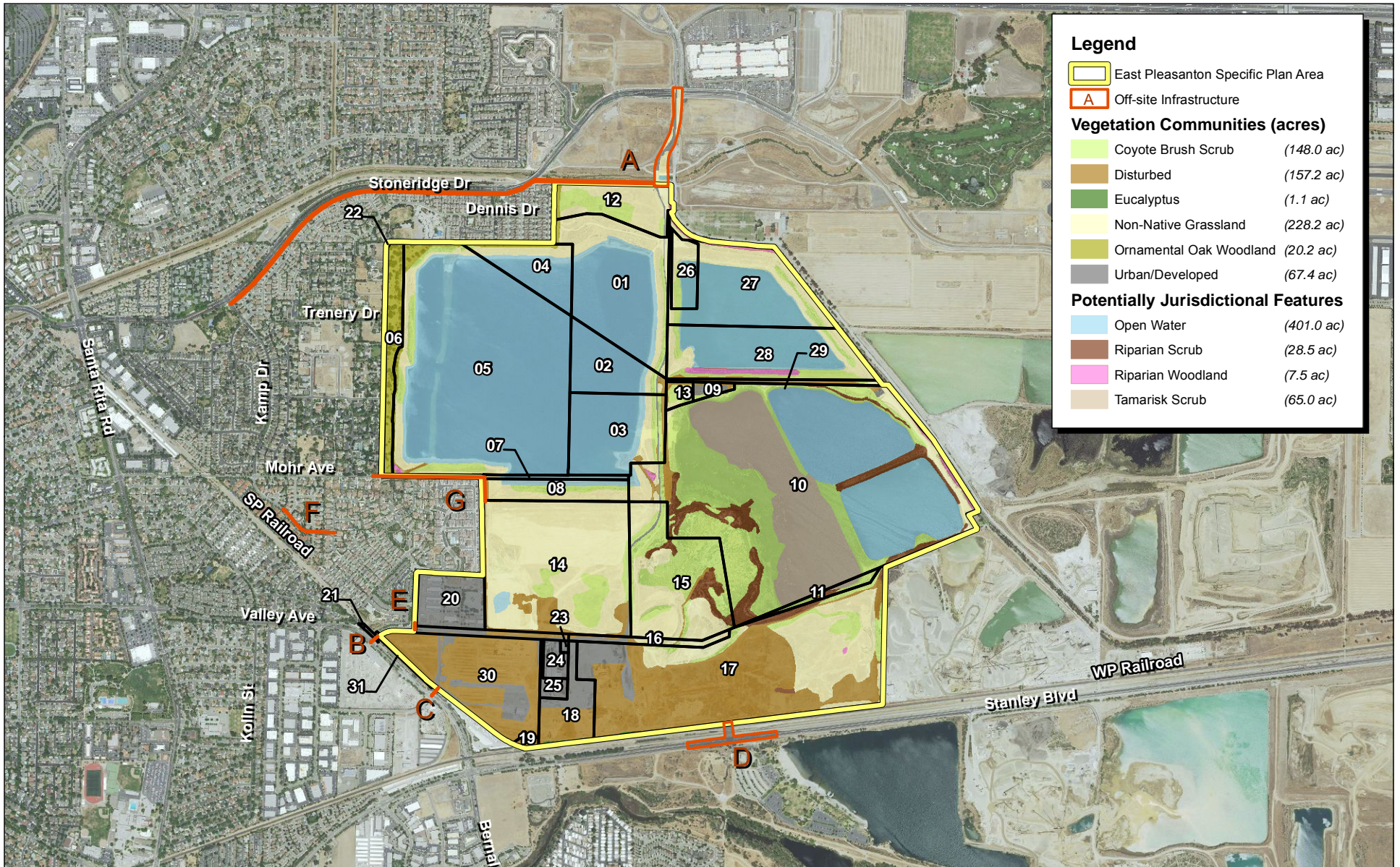
**Table 3.3-4 (cont.): Special-status Species Considered in the Impact Analysis Organized by Habitat Type, Parcel, and Mitigation Measure**

Community/Habitat Type (Exhibit 3.3-1)	Special-Status Species Potentially Occurring within the Plan Area	Community/Habitat Type of Parcels and Offsite Improvement Areas (Exhibit 3.3-3)	Associated Mitigation Measures if Habitat is Disturbed/Impacted
<p>Note: Trees and migration corridors are not discussed in this table as they are not special-status species. Source: FCS, 2015.</p>			

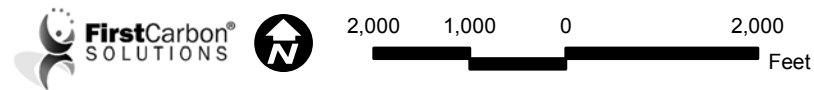
Table 3.3-5 indicates the percentage of each habitat type by ownership area.

**Table 3.3-5: Habitat Type Percentage by Ownership Area**

Habitat Type	Percent						
	City of Pleasanton	Kiewit	Legacy/Lionstone	Pleasanton Gravel Company	Pleasanton Transfer Station	Zone 7	Off-site Improvement Areas
Non-native annual grassland	0.09	0.00	45.12	22.43	0.00	8.62	31.66
Coyote brush scrub	0.00	0.00	15.44	10.28	0.00	14.54	0.00
Disturbed	0.12	84.98	30.34	4.49	0.03	1.44	0.05
Developed	99.70	15.02	5.71	0.00	99.97	0.77	66.74
Ornamental oak woodland	0.09	0.00	0.22	0.00	0.00	3.16	0.00
Eucalyptus	0.00	0.00	0.33	0.00	0.00	0.00	0.00
Open water	0.00	0.00	0.00	58.86	0.00	56.66	1.60
Riparian scrub	0.00	0.00	2.36	0.02	0.00	3.45	0.00
Tamarisk scrub	0.00	0.00	0.00	0.00	0.00	10.92	0.00
Riparian woodland	0.00	0.00	0.08	3.92	0.00	0.44	0.00
<i>Total</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
<p>Note: Percentages are approximate. Source: FCS 2015</p>							



Source: ESRI Aerial Imagery. City of Pleasanton.



## Exhibit 3.3-3 Vegetation Communities with Parcel Overlay

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### 3.3.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Special-Status Plant Species

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**Impact BIO-1:** Development and land use activities contemplated by the Specific Plan may result in direct mortality or the loss of habitat for special-status plant species including plant species identified by the California Native Plant Society with a rating of List 1A or 1B (i.e., rare, threatened or endangered plants).

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#### Impact Analysis

This discussion evaluates the potential for development and land use activities contemplated by the Specific Plan to adversely affect special-status plant species.

Special-status plant species with the potential to occur in the Plan Area's non-native annual grassland areas include heartscale, brittlescale, San Joaquin spearscale, lesser saltscale, Congdon's tarplant, and palmate-bracted bird's beak. However, no special-status plants were observed during a June 7, 2011 reconnaissance-level survey conducted for Zone 7 within the Cope Lake area, or during the October 2, 2012 reconnaissance-level survey by FCS.

The Specific Plan has been designed to protect and avoid existing open space within the Plan Area, thereby maintaining substantial portions of existing habitat. Proposed development areas have been situated to avoid disturbance of existing plant habitats in the following areas:

- No new development proposed between Cope Lake and El Charro Road to avoid disturbance of tamarisk scrub, riparian scrub, coyote brush scrub
- No development proposed along northern and eastern edges of Lake H and Cope Lake to avoid impacts to riparian scrub, riparian woodland
- No development along western edge of Lake I to protect oak woodland
- No disturbance/modification of lakes proposed to avoid impact to open water or perennial stream

Nonetheless, subsequent development under the proposed Specific Plan could result in direct loss of habitat associated with onsite special-status plant species, since these habitat conditions do occur in areas planned for development. In addition to direct impacts, indirect impacts to special-status species could also occur, including habitat degradation as a result of impacts to water quality, introduction of non-native species, and increased human presence. Table 3.3-4 shows the special-status plant species organized by habitat type. (Potential impacts to water quality and mitigation to reduce or avoid these impacts are discussed in Section 3.8, Hydrology and Water Quality.)

To ensure that future development avoids or reduces potential impacts to potential onsite special-status plant species, Mitigation Measures BIO-1a through BIO-1c are included to require the completion of surveys for these species and the implementation of avoidance measures within areas

containing non-native annual grasslands. Therefore, with the implementation of mitigation, impacts would be less than significant.

### **Level of Significance Before Mitigation**

Potentially significant impact.

### **Mitigation Measures**

**MM BIO-1a** *Conduct focused plant surveys for the following special-status plant: heartscale, brittlescale, San Joaquin spearscale, lesser saltscale, Congdon’s tarplant, and palmate-bracted bird’s beak.* Prior to ground clearing or vegetation removal within Plan Area parcels containing non-native annual grassland habitat (as shown on Exhibit 3.3-1 and Table 3.3-4), focused surveys shall be conducted in suitable habitat (non-native grassland) to determine the presence of special-status plant species with the potential to occur as identified in Table 3.3-4. Surveys shall be conducted in accordance with California Department of Fish and Game (CDFG) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2011). These guidelines require rare plant surveys to be conducted at the proper time of year when rare or endangered species are both “evident” and identifiable. Field surveys shall be scheduled to coincide with known flowering periods, and/or during periods of physiological development that are necessary to identify the plant species of concern.

**MM BIO-1b** *Agency Coordination.* If any of the species are found onsite and cannot be avoided, the applicant shall consult with the U.S. Fish and Wildlife Service (USFWS) and/or CDFW, as applicable, to determine appropriate avoidance and mitigation for special-status plants.

**MM BIO-1c** *Avoid or minimize impacts on special-status plant species populations.* The project applicant shall implement the following measures to avoid or minimize impacts on special-status plant species.

1. The project will be redesigned or modified to avoid direct and indirect impacts on special-status plant species, if feasible.
2. Special-status plant species near the project site will be protected during construction by installing environmentally sensitive area fencing (orange construction barrier fencing) around special-status plant species populations. The environmentally sensitive area fencing shall be installed at least 20 feet from the edge of the population where feasible. Where special-status plant populations are located in wetlands, silt fencing shall also be installed. The location of the fencing shall be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications shall contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within the fenced environmentally sensitive area.



3. The project proponent will coordinate with the appropriate resource agencies and local experts to determine whether transplantation of special-status plant species is feasible. If the agencies concur that it is a feasible mitigation measure, the botanist shall develop and implement a transplantation plan in coordination with the appropriate agencies. The transplantation plan shall involve identifying a suitable transplant site, moving the plant material and seed bank to the transplant site, collecting seed material and propagating it in a nursery, and monitoring the transplant sites to document recruitment and survival rates.

### ***Level of Significance After Mitigation***

Less than significant impact.

### **Special-Status Wildlife Species – California Red-legged Frog**

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**Impact BIO-2:       Development and land use activities contemplated by the Specific Plan may have a substantial adverse effect, either directly or through habitat modifications, on California red-legged frog.**

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### ***Impact Analysis***

The California-red-legged frog is federally and state listed as a Threatened Species. It is typically found in slow-moving portions of perennial streams, ephemeral streams, and hillside seeps. It is also known to inhabit man-made watercourses, roadside ditches and irrigation canals. The frog is known to occur in Arroyo Las Positas upstream of the Plan Area and in several drainages north of Interstate 580 (I-580). Within the Plan Area's habitat types, the frog may occur in non-native annual grassland, and riparian woodland. No CRLFs were observed during site visits conducted by FCS as well as during the prior surveys completed for the Zone 7 Water Agency's IS/MND prepared for Cope Lake.

A number of factors make the presence of this species in the Plan Area very unlikely.

First, there is limited suitable aquatic habitat within the Plan Area. The project site is vegetated with non-native annual grassland habitat and disturbed lands and generally does not provide suitable cover or forage for the frogs to live or breed. Additionally, the portion of Arroyo Mocho within the Plan Area represents low-quality habitat for the species because of the presence of non-native aquatic predators such as bullfrogs and non-native fish species.

Second, barriers to migration limit the colonization from nearby wetland habitat into the Plan Area. The presence of non-native aquatic predators in Arroyo Mocho represents a barrier to migration from populations north and south of the project site. The highway limits migration from populations north of I-580. Urbanization west of the project site also creates barriers to migration into the project site.

Third, previous protocol-level surveys have not documented the species in the vicinity of the Plan Area. Surveys of the Arroyo Mocho and Arroyo Las Positas in 2002, prior to the Arroyo Mocho Realignment project, and monitoring during construction in 2003-2004 the Stoneridge Drive Specific Plan/Staples Ranch project (PBS&J 2008) did not reveal the presence of this species.

Although California-red-legged frogs are unlikely to be found in the Plan Area, the proximity of recorded occurrences in the Arroyo Las Positas makes it possible that an individual could be found in suitable habitat within the Arroyo Mocho channel and could therefore be affected by the Base Plan, which would be considered a significant impact. Implementation of Mitigation Measures BIO-2a through BIO-2d requires pre-construction surveys, avoidance, and construction monitoring within the Arroyo Mocho channel and within all vegetation communities within 500 feet of the Arroyo Mocho channel. Therefore, with the implementation of mitigation, impacts would be less than significant.

### ***Level of Significance Before Mitigation***

Potentially significant impact.

### ***Mitigation Measures***

- MM BIO-2a**     *Conduct preconstruction surveys for California-red-legged frog.* To avoid and minimize impact to the California-red-legged frog, prior to construction activities within the Arroyo Mocho channel and within all vegetation communities within 500 feet of the Arroyo Mocho channel (Exhibit 3.3-1 and Table 3.3-4), a qualified biologist shall be retained by the project applicant to conduct pre-construction clearance surveys for the California-red-legged frog no more than 48 hours before construction activities begin. If California-red-legged frogs are determined to be absent from the survey area, then no further mitigation would be necessary. If California-red-legged frogs are encountered during any construction activities, construction shall cease and the USFWS shall be notified immediately. Before construction activities can restart, the California-red-legged frog shall be relocated by a USFWS-approved biologist to nearby suitable aquatic habitat.
- MM BIO-2b**     *Implement ground disturbance restrictions associated with construction near the Arroyo Mocho.* To minimize disturbance to dispersing or foraging California-red-legged frog, all construction activities within 100 feet of Arroyo Mocho aquatic habitats shall be conducted during the dry season, between May 2 and October 15, or before the onset of the rainy season, whichever occurs first. Construction that commences in the dry season may continue in the rainy season if exclusion fencing is placed between the construction area and Arroyo Mocho to keep frogs from entering the construction area.
- MM BIO-2c**     *Conduct construction monitoring for California-red-legged frog.* If preconstruction surveys identify California-red-legged frog in the Arroyo Mocho channel or anywhere within the Plan Area, the project applicant shall retain a qualified biologist to monitor for the presence of California-red-legged frog in the active construction area within suitable aquatic and upland habitat. If individual California-red-legged frog could be directly affected by the project construction, then these activities shall cease and the USFWS shall be notified immediately. Formal consultation may then be required by the USFWS, and mitigation measures will be developed through the consultation process to reduce impacts to the species. The project applicant shall

implement mitigation measures that are recommended by the USFWS through the consultation process to reduce impacts to this species.

- MM BIO-2d** *Conduct Environmental Training.* The project applicant shall conduct Worker Environmental Awareness Program (WEAP) training for all contractors and construction crews before construction activities within non-native annual grassland, riparian woodland, or perennial stream habitat begin (Exhibit 3.3-1 and Table 3.3-4). The WEAP shall include a brief review of the special-status species and other sensitive resources that could occur in the construction area (including their life history and habitat requirements) and their legal status and protection.

### **Level of Significance After Mitigation**

Less than significant impact.

### **Special-Status Wildlife Species – California Tiger Salamander**

- Impact BIO-3:** **Development and land use activities contemplated by the Specific Plan may have a substantial adverse effect, either directly or through habitat modifications, on California tiger salamander.**

### **Impact Analysis**

The California tiger salamander is a federally and state listed Threatened species. It is most commonly associated with vernal pools in annual grassland habitat, and there are several CNDDB occurrences of the salamander within five miles of the Plan Area. Several protocol-level California tiger salamander surveys performed in close proximity to the Plan Area have not detected this species. These investigations include (1) protocol-level California tiger salamander adult surveys conducted for the Stoneridge Drive Specific Plan/Staples Ranch project (PBS&J 2008); (2) two years of protocol-level surveys on an adjacent parcel to the east of the Stoneridge Drive Specific Plan Area which resulted in no captures or observations of this species; and (3) field surveys of Arroyo Mocho and Arroyo Las Positas in 2002 within and adjacent to the Stoneridge Drive Specific Plan project site which resulted on no observations of California tiger salamander.

Although unlikely, there is still potential for this species to be detected on the site within non-native annual grassland, riparian woodland, and perennial stream habitat (Arroyo Mucho), and for construction activities to result in direct impacts to the species and or its habitat. This is considered a potentially significant impact. Implementation of Mitigation Measures BIO-3a through BIO-3b would require preconstruction surveys, construction monitoring, and avoidance. Therefore, with the implementation of mitigation, impacts would be less than significant.

### **Level of Significance Before Mitigation**

Potentially significant impact.

- MM BIO-3a** *Conduct preconstruction surveys for California tiger salamander and comply with U.S. Fish and Wildlife Service (USFWS) mitigation measures.* Prior to construction activities, the project applicant shall complete surveys for California tiger

salamander within non-native annual grassland, riparian woodland, or perennial stream habitat (Arroyo Mocho [Exhibit 3.3-1 and Table 3.3-4]) and shall provide results of the survey to USFWS. If no California tiger salamander are found, then no mitigation would be necessary. However, if California tiger salamander are determined to occur within the Plan Area, then consultation with the USFWS will be required. If consultation is required, the USFWS requires the preparation of a Biological Assessment that evaluates the effects of the proposed project on listed and proposed threatened and endangered species. Through the process, appropriate mitigation measures shall be developed to reduce impacts to California tiger salamanders. Mitigation measures may include (not limited to) preservation, creation and/or enhancement of offsite habitat for the species.

**MM BIO-3b** Provide construction monitoring for California tiger salamander within non-native annual grassland, riparian woodland, or perennial stream habitat (Arroyo Mocho) (Exhibit 3.3-1 and Table 3.3-4). If surveys identify California tiger salamander within the Plan Area, each project applicant shall retain a qualified biologist to monitor the presence of California tiger salamander in the active construction area. If individual California tiger salamanders could be directly affected by project construction, then these activities shall cease and the USFWS shall be notified immediately. Mitigation measures will be developed through the consultation process to reduce impacts to the species.

### ***Level of Significance After Mitigation***

Less than significant impact.

### **Impacts to Species of Concern and Other Non-Listed Special-Status Species**

**Impact BIO-4:** Development and land use activities contemplated by the Specific Plan may result in direct and indirect loss of habitat and individuals of animal and plant species of concern and other non-listed special-status species.

### ***Impact Analysis***

Species of special concern are not protected under state or federal law; however, mitigation may be required by the lead agency for CEQA. Species of special concern are those that have the potential for listing under CESA if negative population trends continue. By considering them early in the planning process, problems can be avoided if listing occurs before the completion of a project.

#### ***Western Pond Turtle***

The Plan Area includes marginally suitable riparian woodland and perennial stream habitat (Arroyo Mocho) for the western pond turtle, a California species of special concern (Table 3.3-4). It is the goal of CDFW to maintain viable populations of this species as declining population levels, limited ranges, and/or continuing threats have made them increasingly vulnerable to regional extirpation. Maintaining a viable population requires the protection of suitable nesting sites and the reduction of mortality in the younger age groups. As indicated in Exhibit 3.3-1 and Table 3.3-4, the Plan Area currently provides suitable riparian woodland (south of Lake H and north of Lake H along Arroyo

Mocho) and perennial stream habitat (El Charro Road crossing of Arroyo Mocho) for western pond turtle. While development is not proposed within these areas, infrastructure may impact the areas, or indirect impacts from adjacent development could impact the habitat. As such, implementation of Specific Plan development within and adjacent to such habitat has the potential to impact this species.

#### *Burrowing Owl*

Although no burrowing owls were observed during surveys in 2012, additional site-specific surveys may be required to determine presence/absence of owls and other raptors. Development of the Base Plan is likely to span several years and, therefore, surveys may need to be conducted annually, or prior to construction activity, to confirm nesting status of burrowing owl.

#### *Special-Status Bats*

Bats, such as the pallid bat, have the potential to occur within the Plan Area, since suitable riparian woodland and developed habitat (buildings and other structural features) are present (Table 3.3-4 and Exhibit 3.3-1). Habitat for bat species vary from snags, the loose bark of a tree, other vegetation, rock overhangs, manmade structures, caves, mines and culverts. Disturbance of significant roost sites can result in a significant impact on regional populations. Changes in their habitat including increase in noise and vibrations can severely affect the survivorship of the young if construction occurs adjacent to maternity colonies during spring and summer breeding and the subsequent raising of young.

#### *Summary*

Implementation of development in accordance to the Specific Plan has the potential to impact western pond turtle, burrowing owl, and special-status bats with identified suitable habitat areas within and adjacent to the Plan Area (see Exhibit 3.3-1 and Table 3.3-4). Implementation of Mitigation Measures BIO-4a through BIO-4c would require preconstruction surveys and avoidance measures. With the implementation of mitigation, impacts would be less than significant.

#### ***Level of Significance Before Mitigation***

Potentially significant impact.

#### ***Mitigation Measures***

**MM BIO-4a** Prior to the issuance of demolition, grading, or building permits within or within a 100-foot buffer of riparian woodland (south of Lake H and north of Lake H along Arroyo Mocho), or perennial stream habitat (El Charro Road crossing of Arroyo Mocho) within the Specific Plan boundaries (Exhibit 3.3-1 and Table 3.3-4), a site specific focused survey for western pond turtle shall be conducted within the construction area (project footprint and staging areas) and the 100-foot buffer by a qualified biologist 30 days prior to the onset of construction activities to determine presence or absence of this species. If juvenile or adult turtles are found within the proposed construction area, the individuals shall be moved out of the construction site under consultation with the California Department of Fish and Wildlife (CDFW). If a nest is found within a 100-foot radius of the construction area, construction shall

not take place within 100 feet (30 meters) of the nest until the turtles have hatched, or the eggs have been moved to an appropriate location under consultation with the CDFW.

Unless otherwise approved by the CDFW, construction shall be avoided when adults and hatchlings are overwintering (October to February), due to the likelihood of turtle adults and juveniles being present in upland habitats. If construction activities must occur during this period, a survey for overwintering locations shall be conducted within two weeks prior to construction. If this species is found overwintering within the expansion area (construction area and the 100-foot buffer radius), den locations shall be avoided until the area is unoccupied, as determined by a qualified biologist.

If pond turtles are found in the Plan Area, locations of these occurrences shall be mapped. A detailed mitigation/conservation plan that includes long-term strategies for the conservation of the species shall be developed in consultation with CDFW upon confirming the presence of this species in the Plan Area. Measures may include trapping and relocation of pond turtles and/or purchase of mitigation credits. If this species is not found in the plan area, no further mitigation is necessary.

**MM BIO-4b**

For each parcel identified in Table 3.3-4 as having suitable habitat (non-native grassland) for burrowing owls within the Plan Area, within 30 days prior to the onset of construction activities outside of the breeding season (September to January), a qualified biologist shall conduct a protocol-level burrowing owl survey as outlined in the Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium 1993 and CDFG 2012) to determine if burrowing owls are present. If burrowing owls are observed on the site, measures such as flagging the burrow and avoiding disturbance shall be implemented. In addition, suitable offsite habitat shall be preserved, and passive or active relocation to move owls from the site shall be implemented to ensure that no owls or active burrows are inadvertently buried during construction. All measures shall be determined by a qualified biologist and approved by the CDFW.

All burrowing owl surveys shall be conducted according to CDFW protocol. The protocol requires, at a minimum, four field surveys of the entire construction area (project footprint and staging areas) and areas within 500 feet of the construction area that contain suitable habitat (non-native grassland) by walking transects close enough that the entire site is visible. The survey shall be at least 3 hours in length, either from 1 hour before sunrise to 2 hours after or 2 hours before sunset to 1 hour after. Surveys shall not be conducted during inclement weather, when burrowing owls are typically less active and visible.

If burrowing owls are detected, the following actions may be implemented:

- If nesting burrowing owls are found to occur within the construction area or the 500-foot radius, no disturbance shall occur within 250 feet of occupied burrows during the non-breeding season (September 1 to January 31) or within 246 feet during the breeding season (February 1 to August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) the birds have not begun egg-laying and incubation or (2) juveniles from the occupied burrows are foraging independently and are capable of independent living. Avoidance requires that a minimum of 6.5 acres of foraging habitat be preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired birds. If avoidance is not an option and foraging and burrowing habitat will be lost, a minimum of 6.5 acres of foraging habitat (i.e., a 330-foot radius from burrow) per pair or unpaired resident bird shall be replaced offsite. These protected replacement lands will be adjacent to occupied burrowing owl habitat and at a location acceptable to CDFW. If destruction of occupied burrows is unavoidable, passive relocation shall be implemented during the non-breeding season as specified in the Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium 1993 and CDFG 2012).

**MM BIO-4c** Prior to the issuance of demolition, grading, or building permits within riparian woodland (south of Lake H and north of Lake H along Arroyo Mocho) and developed habitats (buildings and other structural features) within the Specific Plan boundaries (Exhibit 3.3-1 and Table 3.3-4), a site-specific, pre-construction bat survey shall be performed by a wildlife biologist or other qualified professional within the riparian woodland and developed habitats. If bat roosts are identified onsite, the City shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to maternity roosting season (typically May to August) of each construction phase prior to the onset of construction activities. If maternity roosts are identified during the maternity roosting season (typically May to August), they must remain undisturbed until a qualified biologist has determined the young bats are no longer roosting. Replacement roost habitat (e.g., bat boxes) may be required onsite for roosting sites removed; type, quantity, and placement of bat boxes shall be determined during coordination with CDFW.

### ***Level of Significance After Mitigation***

Less than significant impact.

### **Impacts to Birds**

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**Impact BIO-5:           Development and land use activities contemplated by the Specific Plan may result in take of raptor and other birds protected by the Migratory Bird Treaty Act.**

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### ***Impact Analysis***

The Plan Area contains habitat that could support both tree-nesting and ground nesting avian species. Construction-related activities including but not limited to grading, materials laydown,

facilities construction, vegetation removal, and construction traffic may result in the disturbance of nesting species protected by the MBTA. Potential impacts to MBTA-protected breeding birds, including special-status species such as the white-tailed kite, northern harrier, tri-colored black bird, and western burrowing owl are considered significant under CEQA. Implementation of Mitigation Measure BIO-5 would require preconstruction surveys and avoidance. Therefore, with the implementation of mitigation, impacts would be less than significant.

### ***Level of Significance Before Mitigation***

Potentially significant impact.

### ***Mitigation Measures***

- MM BIO-5** All project applicants within the Plan Area shall be required to implement the following in all habitat types:
1. Schedule construction activities to avoid nesting activities. The avian breeding window, on average, is between February 1 and August 31, which complies with the Migratory Bird Treaty Act. Construction activities should occur between September 1 and January 30.
  2. If project activities cannot avoid the breeding bird season (generally February 1 through August 31), a focused survey for raptors and migratory bird nests shall be conducted within 30 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests onsite. Surveys shall continue weekly in a 500-foot area (for listed special-status species), a 100-foot area (for raptors and other non-listed special-status species), and a 50-foot area (for non-listed migratory birds) surrounding the construction zone to confirm the presence of nesting birds during construction activities. The qualified biologist shall survey for nesting birds adjacent to the construction site to determine whether the activities taking place have the potential to disturb or otherwise harm the nesting birds. Surveys will focus on species protected by state or federal laws in all areas that may provide suitable nesting habitat. For activities that occur outside the breeding bird season (generally September 1 through January 30), such surveys would not be required.
  3. If active nests or nurseries are found, the area with nesting birds will not be disturbed until abandoned by the bird (normally after September 1). Trees containing nests that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to late January). If an active nest is located within the 500-foot area, a buffer zone shall be established by the biologist and confirmed by the appropriate resource agency. Construction will not resume within the buffer until the nest is vacated and juveniles have fledged, and there is no evidence of a second attempt at nesting, as determined by a qualified biologist. The perimeter of the protected area shall be indicated by bright orange temporary fencing. No construction activities or personnel shall enter the protected area, except with approval of a qualified biologist. Reference to this requirement and the MBTA shall be included



in the construction specifications. If no active nests are found during the focused survey, no further mitigation will be required, but weekly surveys shall continue to ensure no nests become active after construction.

4. Conduct all vegetation clearing (including shrubs and bushes) outside of the bird breeding season (September 1 through January 30). If clearing of any vegetation must take place during the breeding season, a qualified biologist must survey the vegetation to be removed for nesting migratory birds. If a nest is found, a buffer zone shall be established by the biologist and confirmed by the appropriate resource agency. In addition, no trees with cavities potentially used for cavity-nesting birds shall be removed during the bird breeding season to avoid disturbance or mortality. Reference to this requirement and the MBTA shall be included in the construction specifications.

### ***Level of Significance After Mitigation***

Less than significant impact.

### **Impacts to Potential Jurisdictional Waters**

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**Impact BIO-6:           Development and land use activities contemplated by the Specific Plan may result in substantial adverse impacts to, and the potential loss of, jurisdictional waters of the U.S.**

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### ***Impact Analysis***

There is an estimated total of 502.0 acres of potential jurisdictional features within the Plan Area including a small section of Arroyo Mocho near the El Charro Road crossing. Implementation of the Specific Plan, specifically development identified in the Specific Plan Land Use Map and roadway construction, could result in direct and indirect impacts to potentially jurisdictional waters. The Specific Plan includes extensive open spaces where development would not occur and jurisdictional features would not be affected by Specific Plan development; therefore, the total area of impacted potentially jurisdictional features that could be affected would be only 9.4 acres, as shown in Table 3.3-6. Table 3.3-4 identifies parcels within the Plan Area that contain potentially jurisdictional features.

Impacts to jurisdictional features would require a 404 permit from USACE and a 401 Water Quality certification from the RWQCB. Potential trenching of creeks within the Plan Area would also require a Streambed Alteration Agreement (California Fish and Game Code §1600). Both the USACE and CDFW have a “no net loss” policy for jurisdictional features; therefore, this impact would be considered potentially significant.

**Table 3.3-6: Potential Jurisdictional Features Impacted by the Proposed Project**

Potential Jurisdictional Feature	Acreage Impacted by Proposed Development*
Open water**	1.6
Riparian scrub	7.6
Riparian woodland	0.2
<b>Total Potential Jurisdictional Features</b>	<b>9.4</b>
Notes: * The calculations include all land use designations except for areas within Zone 7 since these areas would presumably have no impact on these habitat types ** Arroyo Mocho is mapped as Open Water within the Project Area near El Charro Road Source: FCS, 2013.	

Jurisdictional waters of the U.S. provide for a variety of functions for plants and wildlife within the Plan Area. Jurisdictional waters provide habitat, foraging, cover, migration and movement corridors, and water sources for both special-status and other species found in the Plan Area. In addition to habitat functions, jurisdictional waters provide physical conveyance of surface water flows as well as channels for the handling of large stormwater events. Large storms can produce extreme flows that cause bank cutting and sedimentation of ephemeral drainage and water bodies such as open water and streams in the Plan Area. Jurisdictional waters found within the Plan Area can slow these flows and lessen the effects of these large storm events, protecting habitat and other resources. Impacts to surface water flows are discussed further in section 3.8 Water Quality and Surface Hydrology.

Mitigation Measure BIO-6a through 6d would require implementation of a wetland delineation, applicable permits, and best management practices that would reduce impacts to less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM BIO-6a** A wetland delineation shall be completed for each project with the potential to affect jurisdictional features within open water, tamarisk scrub, riparian scrub, or riparian woodland as indicated on Exhibit 3.3-1 and Table 3.3-4. Pending verification by the USACE of a Wetland Delineation and as part of each subsequent project application submittal to the City, the project applicant shall identify all potential wetland resources that occur onsite for City review. If wetland resources are proposed to be impacted, the project applicant shall do the following:

1. If required, apply for a Section 404 permit from the United States Army Corps of Engineers (USACE) after verification of the wetland delineation by 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. Onsite creation of wetland habitat is preferred to offsite 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 certification from the RWQCB.
3. A mitigation plan shall be implemented that includes one or both of the following:
  - (a) Completion of an onsite Mitigation and Monitoring Plan that includes onsite restoration/creation/preservation of the wetlands.
  - (b) Obtain credits at an approved mitigation bank.

**MM BIO-6b** A Streambed Alteration Agreement for removal of or disturbance to riparian habitat and Waters of the U.S. (e.g., stream, lake, or river) (Table 3.3-4) from the California Department of Fish and Wildlife (CDFW) would also be required for the projects that will affect features under the jurisdiction of CDFW. This agreement would include measures to minimize and restore riparian habitat. The 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 onsite preservation is not possible, offsite habitat compensation standards shall consist of a 2:1 impact preservation ratio (2 acres of offsite preserved habitat for every onsite acre impacted).

**MM BIO-6c** The best available technology in Best Management Practices (BMPs) shall be employed on all construction sites within the Plan Area during construction to reduce sedimentation, erosion, water pollution, and dust to the greatest extent practicable. A Grading and Erosion Control Plan shall be prepared by the applicant or applicant's contractor and submitted to the City of Pleasanton Public Works and City of Pleasanton Planning Division for approval prior to the start of project construction, including clearing and grubbing. In areas where wetlands are within 250 feet of the project footprint, erosion control measures and construction fencing shall be emplaced, monitored for effectiveness, and maintained throughout the construction operations around all wetlands.

### ***Level of Significance After Mitigation***

Less than significant impact.

### **Impacts to Sensitive Biological Community – Riparian Habitat**

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**Impact BIO-7:**      **Development and land use activities contemplated by the Specific Plan may result in disturbance, degradation, and removal of riparian habitat.**

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### ***Impact Analysis***

The Specific Plan includes buffer areas adjacent to Cope Lake, and Lakes H and I that would maintain existing riparian habitat areas. However, implementation of the Specific Plan would potentially impact 7.8 acres of riparian habitat (7.6 acres of riparian scrub west of Cope Lake and 0.2 acre of

riparian woodland in the southeast corner of the Plan Area). Table 3.3-4 indicates which parcels within the Plan Area contain riparian habitat.

Riparian habitat supports a high diversity of wildlife species and provides shade for streams and wetlands, maintaining stream temperatures and reducing stream evaporation. Riparian obligates (i.e., species that are dependent on riparian habitat) typically require a minimum of a 100-foot setback (Ledwith 1996). Buffers are not only important to the species they support, they also can reduce sediment and nutrient inputs into streams. The length of buffers is also important for stream functions. The benefits of riparian corridor buffers increase if they are adjacent to larger tracts of conserved land. Riparian habitat is considered to be a sensitive natural community under CEQA. Therefore, disturbance and loss of riparian habitat is considered a potentially significant impact. However, implementation of Mitigation Measures BIO-6b would require avoidance and minimization of impacts. The 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 onsite preservation is not possible, offsite habitat compensation standards shall consist of a 2:1 impact preservation ratio (2 acres of offsite preserved habitat for every onsite acre impacted), thereby reducing impacts to a less than significant level.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

Implement MM BIO-6a through MM BIO-6d.

**Level of Significance After Mitigation**

Less than significant impact.

**Conflicts With Local Biological Policies or Ordinances**

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**Impact BIO-8:            Development and land use activities contemplated by the Specific Plan may conflict with local biological policies or ordinances.**

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**Impact Analysis**

The Specific Plan has been designed to be consistent with the City of Pleasanton General Plan. The Specific Plan provides significant open space areas to maintain existing natural habitats and includes landscaping requirements that provide for appropriate use of trees and vegetation consistent with the General Plan and Municipal Code regulations. The Specific Plan provides the following objectives in relation to biological resources:

- Enhance the viability of a sustainable environment by protecting and conserving natural resources, reducing energy usage, and facilitating the emission fewer air pollutants.
- Protect special-status plant and wildlife species.

- Protect and permanently preserve areas of significant woodland, wetlands, other valuable habitat areas, and wildlife corridors.

In addition, mitigation measures provided in this document would ensure impacts to protect habitats and species are reduced to less than significant.

Although a tree inventory has not been prepared for the Plan Area, large trees meeting the City of Pleasanton Tree Ordinance could be present in the Plan Area, and could be impacted during the implementation of the Specific Plan. However, removal of trees, including trees meeting the criteria of the City's definition of a heritage tree, would be required to comply with the Chapter 17.16, Tree Preservation, of the Pleasanton Municipal Code. Consistent with the Tree Preservation Chapter, prior to approval of projects in the Plan Area, each project applicant would be required to submit a tree report to the City, using a City-approved arborist. The tree report would include an appraisal of the condition and replacement value of all trees that are required to be removed as a result of the development, in accordance with the current edition of the Guide for Plant Appraisal under the auspices of the International Society of Arboriculture. In addition, each project applicant would be required to submit to the City a proposed tree preservation plan, prepared in accordance with the City's Tree Preservation Ordinance, indicating how the loss of affected heritage trees would be mitigated. Mitigation measures may include providing additional trees onsite, above and beyond what would normally be required by the City; paying the value of the trees proposed to be removed into the City's Urban Forestry Fund; or some combination of both consistent with the Tree Preservation Chapter. Compliance with the Tree Preservation Chapter of the Municipal Code, as required, would ensure impacts would be less than significant.

#### ***Level of Significance Before Mitigation***

Potentially significant impact.

#### ***Mitigation Measures***

No mitigation is necessary.

#### ***Level of Significance After Mitigation***

Less than significant impact.

#### **Impacts to Migratory Corridors**

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<b>Impact BIO-9:</b>	<b>Development and land use activities contemplated by the Specific Plan could interfere substantially with the movement of native resident or migratory fish or wildlife species.</b>
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#### ***Impact Analysis***

The Plan Area is located in a region that has experienced significant urban growth in recent decades. The Plan Area is between two growing urban centers (Pleasanton and Livermore) and is also located along a major highway (I-580). These urbanized areas and features represent barriers to migration for wildlife throughout the region. Evidence of deer (e.g., tracks and droppings) within the Specific Plan boundaries indicates that wildlife does occasionally travel through the site. These resident deer populations most likely travel along the undeveloped areas along Arroyo Mocho, entering the Plan

Area from the east. The deer populations in the region generally inhabit the open space areas north of I-580 and undeveloped hillside areas south of I-580, and occasionally are able to cross the highway or other major roadways on overpasses and underpasses near the open space areas.

Implementation of the Specific Plan would not interfere substantially with the movement of any native resident or migratory terrestrial wildlife species or with established wildlife corridors, because existing barriers to migration in the vicinity of the Plan Area already limit migratory movements. Impacts to terrestrial wildlife movement within the Plan Area are therefore less than significant.

However, wildlife movement within Arroyo Mocho could be affected by nighttime lighting spillover from the Base Plan and construction of the required project-related infrastructure (roadway/bridge over Arroyo Mocho). The new sources of nighttime lighting could increase predation efficiency and disrupt movements of wildlife within the channel. The increase in light sources could also alter local behavior of migratory species such that movements are delayed, disrupted, or individuals are subject to predation. This is considered a potentially significant impact. Implementation of Mitigation Measure BIO-9a and BIO-9b would require the minimization of spillover light and, therefore, reduce impacts to less than significant.

As discussed in Impact BIO-5, birds are protected by the MBTA. Construction-related activities—including but not limited to grading, materials laydown, facilities construction, vegetation removal, and construction traffic—may result in the disturbance of nesting species protected by the MBTA. Potential impacts to MBTA-protected breeding birds are considered significant under CEQA. Additionally, loss of habitat such as riparian scrub, riparian woodland, and open water are considered significant under CEQA. However, implementation of Mitigation Measure BIO-5 and Mitigation Measures BIO-6a through BIO-6c would reduce impacts to less than significant.

### ***Level of Significance Before Mitigation***

Potentially significant impact.

### ***Mitigation Measures***

**MM BIO-9a** *Minimize lighting spillover.* All outdoor lighting shall be equipped with devices that will direct lighting away from the Arroyo Mocho and outdoor lighting within 200 feet of the centerline of the arroyo shall be of the minimum wattage required for that particular use and shall be shielded and directed away from the corridor to the specific location intended for illumination (e.g. roads, walkways, or recreation fields) to prevent stray light spillover onto sensitive habitat.

**MM BIO-9b** *Incorporate wildlife habitat into landscaping plans and community and neighborhood parks.* Landscape plans for the community and neighborhood parks which are adjacent to Open Space shall consider wildlife by providing cover, food, and water for wildlife where feasible.

### ***Level of Significance After Mitigation***

Less than significant impact.

## 3.4 - Cultural Resources

### 3.4.1 - Introduction

This section describes the existing cultural resources setting and potential effects from the implementation of the East Pleasanton Specific Plan within the Plan Area and its surroundings. Descriptions and analysis in this section are based on record searches and a pedestrian survey performed by FirstCarbon Solutions (FCS).

### 3.4.2 - Environmental Setting

#### Overview

The term “cultural resources” encompasses historic, archaeological, and paleontological resources, and burial sites. Below is a brief summary of each component:

- **Historic Resources:** Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State’s history and are generally less than 200 years old.
- **Archaeological Resources:** Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with indigenous cultures.
- **Paleontological Resources:** Paleontology is the study of plant and animal fossils.
- **Burial Sites:** Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

#### Cultural Setting

##### *Native Americans*

At the time of European contact, the East Bay and Southeast Bay areas were occupied by various tribelets that were part of the Ohlone (previously Costanoan) tribe of California Native Americans (Harrington 1942, Levy 1978). The Ohlone group designates a language family consisting of eight branches of the Costanoan language that are considered too distinct to be dialects, with each being related to its geographically adjacent neighbors. These groups lived in approximately 50 separate and politically autonomous tribelet areas, each with one or more permanent villages, between the North San Francisco Bay and the lower Salinas River (Levy 1978).

The arrival of Ohlone groups into the Bay Area appears to be temporally consistent with the appearance of the Late Period artifact assemblage in the archaeological record, as documented at sites such as the Emeryville Shellmound or the Ellis Landing Shellmound. It is probable that the Ohlone moved south and west from the delta region of the San Joaquin-Sacramento River into the Bay Area during the Late Prehistoric. The tribal group that most likely occupied the project area was of the Chochenyo ethnic group, whose territory extended from the southern end of the Carquinez Straits south to Mission San Jose (present-day Fremont), east to present-day Livermore and west to San Francisco Bay. The “Sewnen” was the tribelet closest to the project area. Their direct neighbors to the east may have been tribelets associated with Northern Valley Yokuts people.

The various Ohlone tribes subsisted as hunter-gatherers and relied on local terrestrial and marine flora and fauna for subsistence (Levy 1978). The predominant plant food source was the acorn, but they also exploited a wide range of other plants, including various seeds, buckeye, berries, and roots. Protein sources included grizzly bear, elk, sea lions, antelope, and black-tailed deer as well as smaller mammals such as raccoon, brush rabbit, ground squirrels, and wood rats. Waterfowl, including Canadian geese, mallards, green-winged teal, and American widgeon, were captured in nets using decoys to attract them. Fish also played an important role in the Chochenyo diet and included steelhead, salmon, and sturgeon (Jones 2007).

The Ohlone constructed watercraft from tule reeds and possessed bow and arrow technology. They fashioned blankets from sea otter pelts, fabricated basketry from twined reeds of various types, and assembled a variety of stone and bone tools in their assemblages. Ohlone villages typically consisted of domed dwelling structures, communal sweathouses, dance enclosures, and assembly houses constructed from thatched tule reeds and a combination of wild grasses, wild alfalfa, and ferns.

The Ohlone were politically organized into autonomous tribelets that had distinct cultural territories. Individual tribelets contained one or more villages with a number of seasonal camps for resource procurement within the tribelet territory. The tribelet chief could be either male or female, and the position was inherited patrilineally, but approval of the community was required. The tribelet chief and council were essentially advisors to the community and were responsible for feeding visitors, directing hunting and fishing expeditions, ceremonial activities, and warfare on neighboring tribelets.

The Gold Rush brought disease to the native inhabitants, and by the 1850s, nearly all of the Ohlone had adapted in some way or another to economies based on cash income. Hunting and gathering activities continued to decline and were rapidly replaced with economies based on ranching and farming.

### **Historic Era**

The history of the upper Pleasanton area can be divided into several periods of influence; pertinent historic periods are briefly summarized below.

### **Spanish and Mexican California**

The most dramatic and permanent change to the Native American lifestyle in Central California was the establishment of the Spanish Mission system. The first European contact with the Ohlone is believed to have occurred in 1772 when the Fages Expedition entered the Amador Valley (Levy 1976). Under Father Junipero Serra's leadership, the Franciscan monks erected seven missions within 27 years, and forced most of the Ohlone tribal members into the missions to live and work.

The Crespi Expedition of 1772 was the first to enter the Pleasanton area and noted three villages with a very large marsh (currently the Interstate 580 (I-580)/I-680 Interchange) located at the base of the Amador Valley.



## **Mexican Period**

The Mexican Period, 1821 to 1848, was marked by secularization of the missions and division of their lands among the Californios as land grants termed ranchos. With the declaration of Mexican independence in 1821, Spanish control of Alta California ended, although little change in the lifestyles of the local populations actually occurred. Political change did not take place until mission secularization in 1834, when Native Americans were released from missionary control and the mission lands were granted to private individuals. Following secularization, Anglo-American settlers began to arrive in Alta California and often married into Mexican families, becoming Mexican citizens, which made them eligible to receive land grants.

## **Population Expansion and Alameda County**

In 1848, as a result of the Treaty of Guadalupe Hidalgo, California became a United States territory. Also in 1848, John Marshall found gold at Sutter's Mill, which marked the start of the Gold Rush. The City of Alisal, as Pleasanton was known at the time of the Gold Rush, was located on one of the main routes to the gold fields and quickly became a mercantile stopover for miners seeking their fortunes in the Mother Lode. The influx of miners and entrepreneurs increased the population of California, not including Native Californians, from 14,000 to 224,000 in just four years. When the Gold Rush was over, many miners settled in the Amador Valley and established farms, ranches, and lumber mills.

The immigrant populations of Alameda County increased rapidly after the completion of Western Pacific Railroad between Stockton and Niles Junction in 1869 and the Santa Fe Railroad between Stockton and Richmond in 1896. The great rancheros of the Spanish period were divided and sold for agricultural uses, with intensively irrigated farming made possible in some areas by the development of canals. Other areas, such as nearby Livermore Valley, used the more limited water available from local creeks and wells. Orchards dominated where abundant water was available, while seasonally dry areas were used for dry farming and cattle ranching (Lynch 2007).

## **Twentieth Century**

Pleasanton is located on the Rancho Valle de San José Mexican land grant and was founded by John W. Kottinger, an Alameda County justice of the peace, and named after his friend, Union army cavalry Major General Alfred Pleasanton. A typographical error by a U.S. Postal Service employee apparently led to the current spelling.

Because of its rich soil, Pleasanton became an agricultural center for the Amador Valley with various types of crops and cattle grazing. Pleasanton became known for its horses and boasts one of the oldest horse racing tracks in the nation. Local hops have long been sought by some of the largest beer producers in the United States and Europe, making Pleasanton famous on an international level.

By the late 1960s and early 1970s, Pleasanton was viewed as a prime location for retail and commercial developments and this led to a population explosion that lasted through the 1980s. Having the prime advantage of being located at the intersection of I-580/I-680, several business parks were constructed, including Hacienda Business Park, which is one of the largest in northern

California. Local jobs increased rapidly and by the mid-1980s, Pleasanton was the third-fastest growing city in California based on economic indicators.

Very little information concerning the history of the project area was found during the archival research. It is assumed that it was vacant land with periodic mining and ranching that was not well documented. Since nearly the entire project area has been mined, the original topographic and habitat characteristics have been completely altered. A Phase I Environmental Site Assessment prepared for the Hanson Aggregates West/Radum Plant indicates that prior to the 1930s portions of the Plan Area were cultivated for hay or other agricultural crops. From approximately 1937 to 2001, site uses consisted of aggregate quarrying and processing, including asphalt batching operations after 1980. A 2002 article written by Stephanie Ericson for the Pleasanton Weekly Online Edition notes that a mining reclamation plan inclusive of the project site and adjacent areas was developed in the 1970s and approved by Alameda County in 1981. The reclamation plan included the conversion of the quarry pits and a desilting pond to lakes. The initial three mined-out quarry pits were dedicated to Zone 7 in April of 2003. The purpose of the conversions is to increase the area's water storage capacity by 30 percent, allowing Zone 7 to keep a reliable water supply in the Tri-Valley. Mining permits for the remaining quarries in the Reclamation Plan, all located outside of the Plan Area, do not expire until 2030, and as such, quarry activities are ongoing under the Reclamation Plan.

### 3.4.3 - Regulatory Framework

#### Federal

##### ***National Historic Preservation Act***

The National Historic Preservation Act of 1966 (NHPA), as amended, established the National Register of Historic Places (NRHP), which contains an inventory of the nation's significant prehistoric and historic properties. Under 36 CFR 60, a property is recommended for possible inclusion on the NRHP if it is at least 50 years old, has integrity, and meets one of the following criteria:

- It is associated with significant events in history, or broad patterns of events.
- It is associated with significant people in the past.
- It embodies the distinctive characteristics of an architectural type, period, or method of construction; or it is the work of a master or possesses high artistic value; or it represents a significant and distinguishable entity whose components may lack individual distinction.
- It has yielded, or may yield, information important in history or prehistory.

Certain types of properties are usually excluded from consideration for listing in the NRHP, but they can be considered if they meet special requirements in addition to meeting the criteria listed above. Such properties include religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years.

## State

### **California Register of Historical Resources**

As defined by Section 15064.5(a)(3)(A-D) of the California Environmental Quality Act (CEQA) Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (CRHR). The California Register of Historical Resources and many local preservation ordinances have employed the criteria for eligibility to the NRHP as a model, since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets the NRHP criteria is clearly significant. In addition, a resource that does not meet the NRHP standards may still be considered historically significant at a local or state level.

### **California Environmental Quality Act**

The CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. The CEQA guidelines direct lead agencies to evaluate archaeological sites to determine if they meet the criteria for listing in the California Register. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the California Register, potential adverse impacts to it must be considered. If an archaeological site is considered not to be an historical resource but meets the definition of a “unique archeological resource” as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.

## Local

### **City of Pleasanton**

#### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs related to cultural resources:

- **Goal 4:** Designate, preserve, and protect the archaeological and historic resources within the Pleasanton Planning Area.
  - **Policy 5:** Preserve and rehabilitate those cultural and historic resources which are significant to Pleasanton because of their age, appearance, or history.
    - **Program 5.1:** When reviewing applications for development projects, use information regarding known archaeological finds in the Planning Area to determine if an archaeological study, construction monitoring or other mitigations are appropriate. Require that archaeological studies meet the requirements of the California Environmental Quality Act Guidelines Section 15064.5 in identifying mitigation measures if an archaeological site is encountered. Include provisions for the interpretation of cultural resources. Consult with the California Archaeological Inventory, Northwest Information Center, as necessary.
    - **Program 5.2:** Follow the recommendations contained within archaeological and historical architecture studies regarding rehabilitation or preservation of archaeologically or historically significant structures and sites.
    - **Program 5.3:** Continue to include a standard condition of project approval to require the cessation of all construction and grading activities within the vicinity of any discovered

prehistoric or historic artifacts, or other indications of cultural resources, until any such find is evaluated by a qualified professional archaeologist, and appropriate mitigation is approved by the City.

### 3.4.4 - Methodology

#### Record Searches

##### **Northwestern Information Center (NWIC) Record Search**

On October 4, 2012, a records search was conducted by staff at the Northwestern Information Center (NWIC), Sonoma State University, Rohnert Park, California (NWIC File # 11-243). The record search included the Plan Area and a 0.25-mile radius outside the project boundaries. The record search included current inventories of the NRHP, the CRHR, the California State Historic Resources Inventory, California State Historic Landmarks, and the California Points of Historical Interest.

The record search indicated that five studies—NWIC # S-001330, S-017993, S-024986, S-025122, and S-030892—have been conducted within the project area. Thirty-five studies have been conducted within a 0.25-mile radius of the project boundaries, listed by NWIC #:

- S-000781
- S-002224
- S-002995
- S-005866
- S-007084
- S-007375
- S-008130
- S-008838
- S-008893
- S-009087
- S-010456
- S-010678
- S-013210
- S-013454
- S-013876
- S-013878
- S-015227
- S-010678
- S-017781
- S-019017
- S-019114
- S-019785
- S-019786
- S-020705
- S-021551
- S-028673
- S-030892
- S-031639
- S-033520
- S-033598
- S-034483
- S-035364
- S-036780
- S-039330
- S-039331

From the five surveys conducted within the project area, two historic resources (P-01-001776 and P-01-002190) were recorded within the project area. P-01-001776 was recorded in August 21, 2006, and is located adjacent to the northeast boundary of the project area and the northern boundary of Legacy/Lionstone Group’s northern property. P-01-001776 consists of Arroyo Mocho Canal, a natural watercourse that was channelized in the late 19<sup>th</sup> century. In the 1960s, the arroyo was adapted to flood control purposes by straightening, widening, and deepening the natural channel. The resource was evaluated for listing on the NRHP but was considered ineligible.

Historic resource P-01-002190 was recorded in June 8, 2002, and is located at the intersection of Valley Avenue and Stanley Boulevard, at the southwestern corner of the project area and the southwestern corner of the Kiewit Company property. P-01-002190 consists of a railroad alignment originally constructed in the early 20<sup>th</sup> century for the Western Pacific Railroad Company. The resource was evaluated for listing on the CRHR and NRHP, but was considered ineligible on any of these lists.

##### **Native American Heritage Commission Record Search**

On October 4, 2012, FCS sent a letter to the Native American Heritage Commission (NAHC) in Sacramento in an effort to determine whether any sacred sites listed on its Sacred Lands File are

within the current project area. A response from the NAHC was received on October 9, 2012, stating that the search of the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate project area. A list of nine Native American tribal members who may have additional knowledge of the project area was included with the NAHC results. These nine tribal members were sent letters on October 11, 2012 asking for any additional information they might have concerning the project area. As of this date, no responses have been received.

### ***Pedestrian Survey***

FCS's Professional Archaeologist Cher L. Peterson surveyed portions of the project area on October 8, 2012. The majority of the project area has been heavily impacted by gravel quarry operations, and was not able to be surveyed because of the storage of water (Lakes H, I, and Cope Lake). Two specific portions that were not as heavily impacted were surveyed by walking transects across the project area at approximately 15- to 20-meter intervals (Exhibit 3.4-1).

The project area is part of the Livermore-Amador Valley Quarry Lands. Both sections of the surveyed areas consisted of relatively flat, dry areas that were previously utilized as stockpiling areas for quarrying operations, with limited areas where quarrying activities had taken place.

Survey Area #1 is located in the northern portion of the project area and is bounded to the north by Arroyo Mocho Canal, on the east by a paved quarry access road, on the south by Lake I, and on the west by a residential area. Historic maps indicate this survey area was vacant land from 1906 to the 1940s, when it was converted to agricultural fields. The parcel was utilized for quarrying operations in 2002. The ground surface visibility throughout the entire survey area was poor at 15 to 20 percent, due to dry grasses and low shrubs covering the ground surface. Numerous animal burrows were present throughout the survey area, and special attention was paid to these while surveying, as they tend to expose subsurface deposits that may contain cultural materials.

Survey Area #2 is located in the southwestern portion of the project area and is bounded on the north by Lake I, on the east by a paved quarry access road, on the south by previously quarried lands, and on the west by the Ironwood Active Adult Community residential area. Historic maps indicate this survey area was vacant land in 1906 and was converted to quarrying operations by the late 1970s. The ground surface visibility throughout the entire survey area was poor at 10 to 15 percent, due to dry grasses and low shrubs covering the ground surface. Animal burrows were present throughout the survey area and were examined for cultural materials.

No prehistoric or historic cultural resources were encountered during the course of the pedestrian survey in these two areas.

### **Thresholds of Significance**

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, cultural resources impacts resulting from the implementation of the Base Plan would be considered significant if the project would:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- d) Disturb any human remains, including those interred outside of formal cemeteries.

### 3.4.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Historic Resources

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**Impact CUL-1: Subsurface construction activities associated with development and land use activities contemplated by the Specific Plan may damage or destroy previously undiscovered historic resources.**

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#### *Impact Analysis*

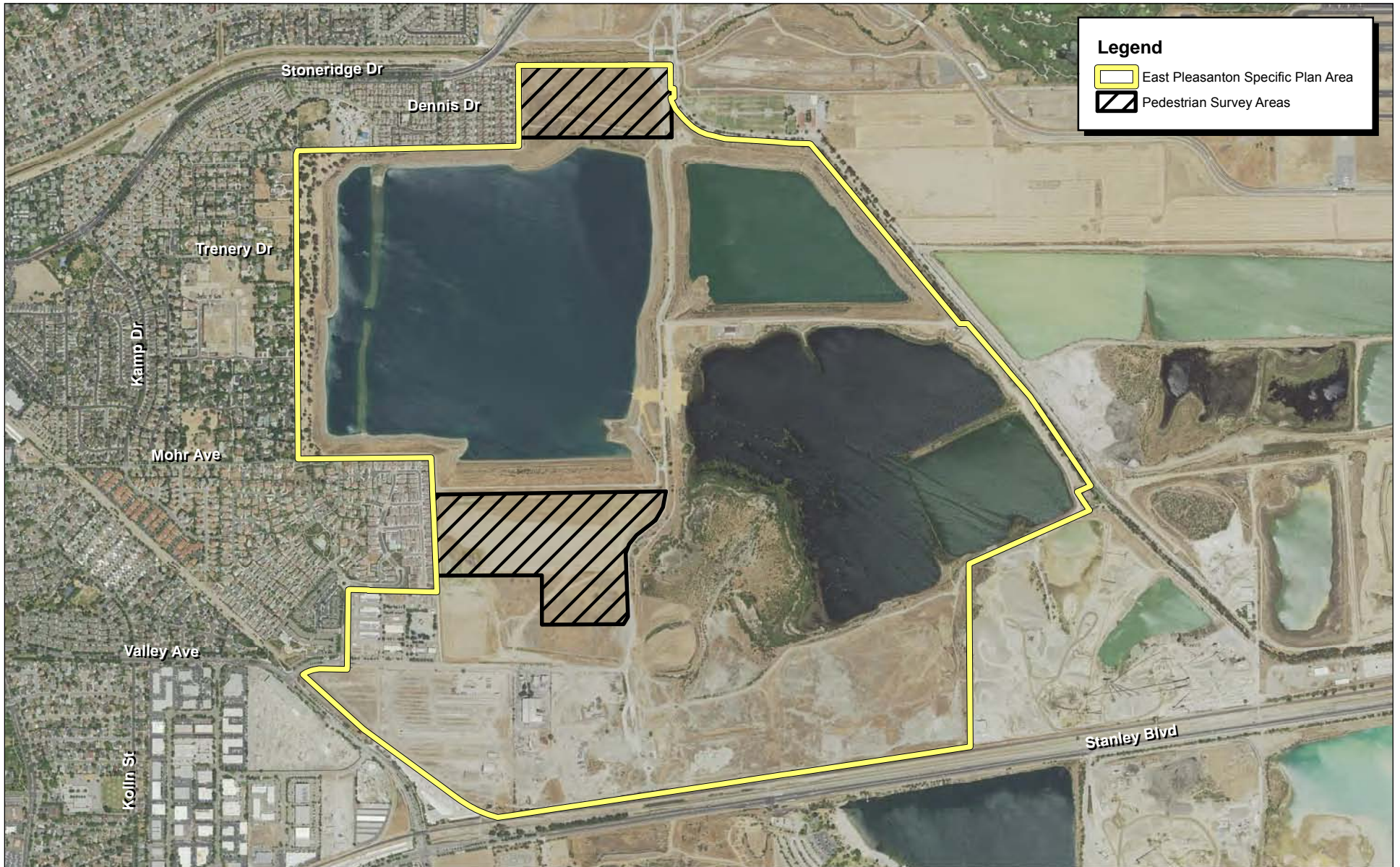
Two historic resources (P-01-001776 and P-01-002190) were recorded within the project area. P-01-001776 was recorded in August 21, 2006. This historic resource, Arroyo Mocho Canal, is a natural watercourse that was channelized in the late 19<sup>th</sup> century and further modified to flood control in the 1960s. The 2006 Department of Parks and Recreation (DPR) form for this resource indicated that it was evaluated for listing on the NRHP but was considered ineligible. The resource is located adjacent to, but outside of the Plan Area and would not be impacted by Base Plan development.

Historic resource P-01-002190 was recorded in June 8, 2002. This historic resource consists of a railroad alignment originally constructed in the early 20<sup>th</sup> century for Western Pacific Railroad Company. The resource was evaluated for listing on the, CRHR, and NRHP, but was considered ineligible. The resource would not be impacted by Base Plan development.

No additional historic resources were encountered during the field survey. Subsurface construction activities associated with the Base Plan, such as trenching and grading, could potentially damage or destroy previously undiscovered historic resources. However, the City's standard conditions of approval would require projects within the Plan Area to implement the following:

1. If any prehistoric or historic artifacts, or other indication of cultural resources are found once the project construction is underway, all work must stop within 20 meters (66 feet) of the find. A qualified archaeologist shall be consulted for an immediate evaluation of the find prior to resuming groundbreaking construction activities within 20 meters of the find. If the find is determined to be an important archaeological resource, the resource shall be either avoided, if feasible, or recovered consistent with the requirements of the CEQA Guidelines.

With the implementation of this standard condition of approval, impacts to previously undiscovered historic resources would be less than significant.



Source: ESRI Imagery



## Exhibit 3.4-1 Cultural Pedestrian Survey Areas

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### ***Level of Significance Before Mitigation***

Less than significant impact.

### ***Mitigation Measures***

No mitigation is necessary.

### ***Level of Significance After Mitigation***

Less than significant impact.

## **Archaeological Resources**

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**Impact CUL-2:** Subsurface construction activities associated with the development and land use activities contemplated by the Specific Plan may damage or destroy previously undiscovered archaeological resources.

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### ***Impact Analysis***

No archaeological resources have been previously recorded within the project site, nor were any encountered during the field survey. However, subsurface construction activities associated with the Base Plan, such as trenching and grading, could potentially damage or destroy previously undiscovered archaeological resources. However, implementation of the City's standard condition of approval, as reflected in Impact CUL-1, would ensure that appropriate actions would occur if any archeological resources are discovered. As such, impact would be less than significant.

### ***Level of Significance Before Mitigation***

Less than significant impact.

### ***Mitigation Measures***

No mitigation is necessary.

### ***Level of Significance After Mitigation***

Less than significant impact.

## **Paleontological Resources**

---

**Impact CUL-3:** Subsurface construction activities associated with the development and land use activities contemplated by the Specific Plan may damage or destroy previously undiscovered paleontological resources.

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### ***Impact Analysis***

The project site lies on Pleistocene alluvial deposits, which can contain significant vertebrate fossils. Vertebrate fossils from these sediments may include but are not limited to mammoth, bison, deer, horse, camel, ground sloth, saber-toothed cat, dire wolf, bear, rodents, birds, and reptiles. As such, subsurface construction activities associated with the Base Plan, such as trenching and grading, could potentially damage or destroy previously undiscovered paleontological resources. Accordingly, this is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM CUL-3** In the event a fossil is discovered during subsurface excavation activities for any Specific Plan development, 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 City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the City to determine procedures to be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards. The plan shall be submitted to City for review and approval. Upon approval, the plan shall be incorporated into the project.

**Level of Significance After Mitigation**

Less than significant impact.

**Human Remains**

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**Impact CUL-4:** Subsurface construction activities associated with the development and land use activities contemplated by the Specific Plan may damage or destroy previously undiscovered human remains.

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**Impact Analysis**

Subsurface construction activities associated with the Base Plan, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, this is a potentially significant impact. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM CUL-4** If previously unknown human remains are encountered during construction activities for any Specific Plan development, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Sections 5097.94 and 5097.98 must be followed. In this instance, once project-related earthmoving begins and if 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 any of 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.

### ***Level of Significance After Mitigation***

Less than significant impact.

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## 3.5 - Geology, Soils, and Seismicity

### 3.5.1 - Introduction

This section describes the existing geology, soils, and seismicity setting and potential effects from Base Plan implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the geotechnical investigations completed by Treadwell & Rollo (2007 and 2009). These investigations were also supported by previous geotechnical and soil characterization investigations conducted for the Plan Area; see references included in the technical studies. Both documents are included in this EIR as Appendix D.

### 3.5.2 - Environmental Setting

#### ***Regional Setting***

The East Pleasanton Specific Plan Area (Plan Area) is located within Amador Valley, which is part of the Coast Range geologic province of California. The Coast Range province is a large area of folded and faulted rocks situated along the western edge of the North American continent. Amador Valley is a depression in this rock formation, which joins the San Ramon Valley to the north with the Livermore Valley to the east.

#### ***Seismicity***

##### *Local Faulting*

There are several active faults in the surrounding areas that could affect the Plan Area. The Calaveras and Verona Faults traverse portions of Pleasanton and are designated as Alquist-Priolo Earthquake Fault Zones (City of Pleasanton 2009). However, these zones are 3.0 and 2.2 miles west and southwest of the Plan Area, respectively.

Pleasanton is in the San Andreas Fault System. The principal active faults, on which there is evidence of displacement during Holocene time (the last 11,000 years), include the Mount Diablo Thrust, Calaveras, Greenville, Hayward, Concord/Green Valley, and San Andreas faults. Figure 5-2 in the Public Safety Element of the proposed General Plan shows the approximate position of the major fault zones, the approximate magnitude and year of the largest recent earthquake on each fault (based on an approximately 200-year period of record), and the location of the Plan Area in relation to these features.

For each of the active faults within 31 miles of the Plan Area, the distance from the site and estimated mean characteristic moment magnitude<sup>1</sup> are summarized in Table 3.5-1 (2007 Working Group on California Earthquake Probabilities [WGCEP] 2007; Cao et al. 2003).

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<sup>1</sup> Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

**Table 3.5-1: Regional Faults and Seismicity**

Fault Segment	Approximate Distance from Site (miles) <sup>2</sup>	Direction from Site	Maximum Magnitude
Verona	2.2 to 4.1	Southwest	6.2
Mount Diablo Thrust	2.9 to 4.5	Northeast	6.7
Total Calaveras	3.0 to 4.4	West	6.9
Greenville	7.5 to 9.3	Northeast	6.9
South Hayward	9.3 to 10.6	Southwest	6.7
Total Hayward	9.3 to 10.6	Southwest	6.9
Total Hayward-Rodgers Creek	9.3 to 10.6	Southwest	7.3
Great Valley – 6	16.2 to 17.4	East	6.7
Concord/Green Valley	16.2 to 17.4	Northwest	6.7
Great Valley – 7	17.4 to 18.6	East	6.7
Monte Vista – Shannon	26.7 to 28	Southwest	6.8
Great Valley – 5	27.3 to 28.6	North	6.5
San Andreas – 1906 Rupture	28 to 30	Southwest	7.9
San Andreas- Peninsula	28 to 30	Southwest	7.2

Source: 2007 Working Group on California Earthquake Probabilities (WGCEP) (2007) and Cao et al. (2003)

Regional faults in the vicinity have triggered numerous seismic events in the past 100 years with estimated magnitudes between 6.7 and 8.3. Each of these earthquakes produced moderate and sometimes strong ground shaking (Intensity V to VIII on the Modified Mercalli Scale) in the Plan Area (City of Pleasanton 2008).

#### *Fault Rupture*

Fault rupture is a seismic hazard that affects structures sited above an active fault. Fault rupture almost always follows pre-existing faults, which are zones of weakness. The hazard from fault rupture is the movement of the ground surface along a fault during an earthquake. Typically, this movement takes place during the short time of an earthquake, but can also occur slowly over many years in a process known as creep. Most structures and underground utilities cannot accommodate the surface displacements of several inches to several feet commonly associated with fault rupture or creep.

Because there are no known active faults within the Plan Area, neither surface rupture nor fault creep is considered a potential hazard.

<sup>2</sup> Because of the size of the Plan Area, ranges are provided for the approximate distance to each fault.

### *Ground Shaking*

The severity of ground shaking depends on several variables such as earthquake magnitude, distance to the fault rupture, local geology, soil thickness, and seismic wave-propagation properties of unconsolidated materials, groundwater conditions, and topographic setting. Ground shaking hazards are most pronounced in areas near faults or underlain by unconsolidated alluvium.

Figure 5-3 in the Public Safety Element of the General Plan shows the relative intensity of peak ground shaking that would be experienced in different parts of the City in the event of a large earthquake. The design earthquake (two-thirds of maximum considered earthquake) for the Plan Area is estimated by the U.S. Geological Survey and the California Geological Survey to be a magnitude 6.8 earthquake in the Calaveras Fault Zone, creating peak ground accelerations of about 40 percent of the acceleration of gravity (0.4g). The resulting vibration can cause damage to buildings and infrastructure (primary effects) and could cause ground failures in loose alluvium, landslide deposits, or poorly compacted fill (secondary effects). To reduce the risks associated with seismically induced ground shaking, the City's Building Code requires that the location and type of subsurface materials be taken into consideration when designing foundations and structures for a particular construction site (City of Pleasanton 2008).

### *Liquefaction*

Liquefaction is a process by which sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid. Liquefaction is restricted to certain geologic and hydrologic environments, primarily loose sand and silt in areas with high groundwater levels. The process of liquefaction involves seismic waves passing through saturated granular layers, distorting the granular structure, and causing the soil to densify.

The USGS identifies the Specific Plan Area as having a moderate potential for liquefaction susceptibility.

Within the City of Pleasanton, approximately 12,000 acres are susceptible to liquefaction. As shown in Figure 5-4 of the General Plan, the Plan Area is not within the liquefaction hazard zone (City of Pleasanton 2009). However, much of the Plan Area consists of fill as a result of previous mining activities. Where saturated granular material is present within the fill, it may be susceptible to liquefaction, liquefaction-induced settlement, and other consequences of liquefaction. These are discussed in the following sections.

To reduce the risks associated with liquefaction-prone soils, the City's Building Code requires that each construction site suspected of containing liquefaction-prone soils be investigated to properly evaluate and address the potential hazard (City of Pleasanton 2008). Liquefaction hazards can be addressed through proper pre-construction treatment of soils and use of appropriate building techniques.

### *Lateral Spreading and Lurching*

Lateral spreading, also referred to as lurching, is a phenomenon in which surficial soil displaces along the interface between liquefied and non-liquefied soil layers. For this phenomenon to occur, the liquefied soil layer must be continuous and the residual strength of the liquefied soil layer must be low enough to allow the upper soil layer to displace. The surficial soil is transported either downslope or in the direction of a free face, such as a channel or slope-face, by earthquake and

gravitational forces. Lateral spreading is generally the most pervasive and damaging type of liquefaction-induced ground failure generated by earthquakes.

Lateral spreading could occur along the arroyos where surface materials consist of young alluvial and fluvial deposits. An occurrence of lateral spreading due to seismic activity is also most likely in conjunction with heavy rainfall (City of Pleasanton 2009). Arroyo Mocho is located directly adjacent to the north, northeastern, and eastern boundaries of the Plan Area. In addition, soils susceptible to lateral spreading are present within the Cope Lake Basin, as discussed below.

#### *Landslides and Slope Failure*

Landslides and other forms of slope failure form in response to the long-term geologic cycle of uplift, mass wasting, and disturbance of slopes. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides, and rock fall. These processes are commonly triggered by intense precipitation. Seismic activity can also trigger landslides and rockfalls.

The majority of slopes in the Plan Area are a direct result of past mining activities and have been engineered during the reclamation process. A possibility exists that some of these slopes may move somewhat during a strong earthquake.

### **Soils**

#### *Native Soils*

According to the General Plan, soils in the City of Pleasanton can be organized into three basic categories: the alluvial soils of the central/eastern lowlands, which underlay downtown and East Pleasanton, the weathered residual soils (designated, weathered bedrock) of the upland areas along the Calaveras fault (Pleasanton and Main Ridges), and the mixed alluvium/residual soils on the Verona Fault (southeast hills).

The soils in the central and eastern lowlands belong primarily to the Clear Lake, Sunnyvale, Sycamore, and Yolo associations. The United States Department of Agriculture (USDA), Natural Resources Conservation Service classifies the Clear Lake association as a somewhat poorly drained, level or gently sloping clay. The Sunnyvale association is a clay loam perched over a layer of clay, a level, poorly drained soil. The Sycamore association is a level, moderately well drained silt loam. Finally, the Yolo association is a level, well drained loam. Minor portions of this area consist of soils belonging to the Pescadero clay association, and to the Pleasanton, and Positas gravelly loam associations.

The entire Plan Area was, at one point, underlain by interbedded layers of sand and gravel, often separated by thin clay layers. Most of the soils and underlying materials in the lowlands have been rated as having a high potential to corrode uncoated steel and a moderate potential to corrode concrete (City of Pleasanton 2009).

The United States Department of Agriculture, Natural Resources Conservation Service indicates that the Plan Area contains the following soil types: gravel pit, Sunnyvale clay loam, Sycamore silt loam,



and Yolo loam, loam over gravel, and gravelly loam. Each soil is summarized in the subsections below in Table 3.5-2.

**Project Site Soil and Geology Zones**

*Excavations and Fill Soils*

Kaiser Sand and Gravel Company mined the majority of the Plan Area for aggregate resources, beginning in 1938. This mining operation and portions of the Plan Area were purchased by Hanson Aggregates (Hanson) in 1991 and were successfully operated until the end of 2001. In general, the quarry operations involved excavating alluvial soil to depths of up to about 80 to 130 feet below the original ground surface and separating sand and gravel for commercial sale. Some of the pits were left open while others were filled during the quarry operations with soil of no significant commercial value. As of 2001, the majority of the Plan Area had been excavated and the ability to feasibly extract aggregate resources from the site had been exhausted. Consequently, Hanson ceased operating the mine and commenced its reclamation efforts. Three quarry pits were left open by Hanson and are now called Lake H, Lake I, and Cope Lake. Lake I and Cope Lake have been transferred to Zone 7 Water Agency for groundwater storage and recharge, and stormwater retention. Lake H is scheduled to be transferred to Zone 7 in 2017.

Based on review of previous reports and historic documents, it appears that the entire Plan Area, with the exception of Busch Road, El Charro Road, the Kiewit Company lands, and the City of Pleasanton Operations Service Center parcel has been excavated and backfilled in some manner (Treadwell & Rollo 2009). Materials used to backfill the former quarry pits consist primarily of overburden soils of silt and clay, fine sand, and hydraulically placed sand, silt, and clay generated from the quarry wash operations. Each of these backfill materials has certain characteristics that can impact development of the site, as discussed in the remainder of this section.

The Treadwell & Rollo Report (2009) divided the Plan Area into eight separate zones based on subsurface characteristics, as follows: (1) Southeast Zone, (2) Parcels E and F, (3) Parcel G, (4) Southwest Zone, (5) Cope Lake Basin, (6) Pleasanton Transfer Station (and Recycling Center) and Adjacent Parcel, (7) Kiewit Company and City of Pleasanton Operations and Service Center parcels, and (8) Lakes H and I. A site plan showing the approximate limits of these zones and their respective site boundaries is presented in Exhibit 3.5-1. Table 3.5-2 correlates these zones with the Plan Area parcels.

**Table 3.5-2: Plan Area Subsurface Soil Zones and Plan Area Parcels**

Subsurface Soil Zone	Plan Area Parcel(s)
Southeast Zone	11, 17 (east half)
Parcels E and F	14, 23
Parcel G	12
Southwest Zone	17 (west half)
Cope Lake Basin	9, 10, 13, 15
Pleasanton Transfer Station and Recycling Center and Adjacent Parcel	18, 23, 24, 25

**Table 3.5 2 (cont.): Plan Area Subsurface Soil Zones and Plan Area Parcels**

Subsurface Soil Zone	Plan Area Parcel(s)
Kiewit Company and City of Pleasanton Operations Service Center parcels	19, 20, 30,31
Lakes H and I	1, 2, 3, 4, 5, 6, 7, 8, 26, 27, 28, 29
Source: Treadwell & Rollo 2009	

**Subsurface Conditions and Site Hazards**

**Southeast Zone**

*Subsurface Soil Conditions – Southeast Zone*

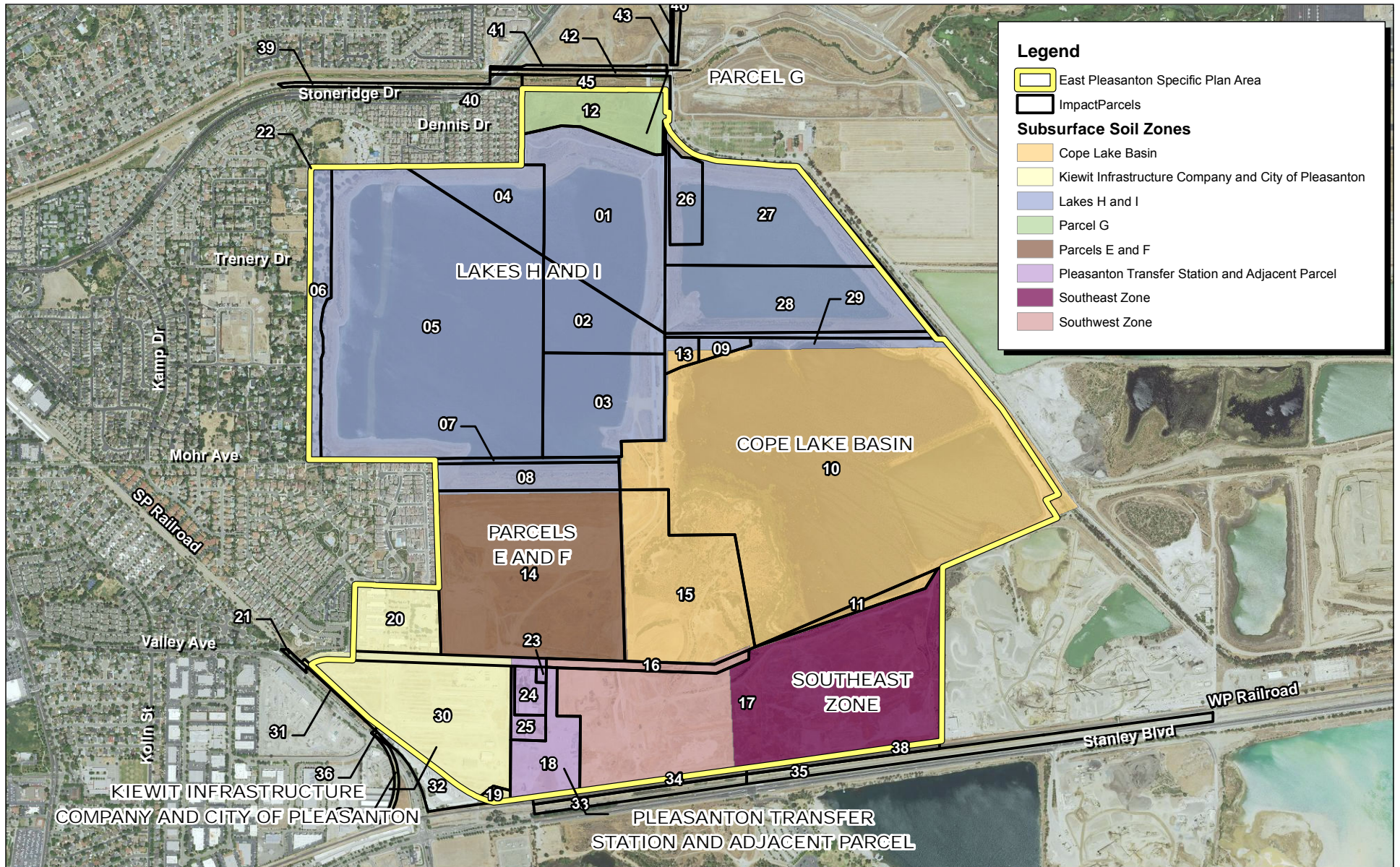
The approximately 76.4-acre Southeast Zone occupies the southeastern corner of the Plan Area and is bounded by Cope Lake to the north, Vulcan’s quarry operations to the east, Stanley Boulevard to the south, and the Southwest Zone to the west.

The majority of this zone is relatively flat, with ground surface elevations ranging from 360 to 371 feet.<sup>3</sup> The northeastern corner of this zone is depressed and has surface elevations on the order of 349 to 355 feet. The southern edge of Cope Lake forms the northern boundary of this zone, and the ground surface along the edge of the lake slopes down at an inclination of about 2:1 (horizontal to vertical). The bottom of Cope Lake, in the vicinity of this slope, is estimated at about elevation 315 to 325 feet and the overall slope height varies between about 30 and 50 feet.

The results of previous investigations indicate the Southeast Zone is underlain by about 93 to 111 feet of fill. The elevation of the bottom of the fill is estimated to range between approximately 254 and 272 feet. The fill varies considerably in soil type and strength. The general engineering characteristics of the fill appears to coincide with the manner in which the fill was placed and the amount of time the fill has been left in place.

Along the northern edge of the zone between Cope Lake and the former sedimentation basins, the fill material generally consists of medium stiff to hard silt and clay with varying amounts of sand and gravel. It appears that this material may have been placed in a controlled manner (i.e., placed at a relatively low moisture content using mechanical equipment) to form a buttress or dyke between Cope Lake and the northern edges of sedimentation pits.

<sup>3</sup> Elevation is based upon the Topographic survey performed by Kier and Wright Civil Engineers and Surveyors dated 31 May 2001. Elevations are referenced to Mean Sea Level datum (NGVD 1929).



Source: ESRI Aerial Imagery. City of Pleasanton.



## Exhibit 3.5-1 Subsurface Soil Zones

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The western one-third of this zone was occupied by a sedimentation basin that was filled prior to 1971. Some of the materials within this area are stiff to very stiff and appear to have been placed in a controlled manner while others appear to have been placed as hydraulic fill.<sup>4</sup> Some of the clayey material that was placed as hydraulic fill appears to be slightly under-consolidated.<sup>5</sup>

In areas where under-consolidated materials are present, the ground surface will continue to slowly settle over time, even if no additional fill or building loads are applied to the site. Within the western portion of this zone, the estimated thickness of the under-consolidated material is up to 26 feet (Treadwell & Rollo 2009).

The eastern two-thirds of the zone was occupied by a sedimentation basin that was active until 1996. The former quarry pit in this area was approximately 111 feet deep, the lower portions of which appear to have been backfilled with medium stiff clay (placed in a controlled manner at the lower portion of this pit prior to its use as a sedimentation basin). The remainder of the fill appears to consist of very soft, under-consolidated, compressible, high plasticity silt and clay, overlain by fill that appears to have been placed in a controlled manner.

The very soft material appears to have been placed using hydraulic methods. The thickness of the very soft, under-consolidated material within this zone varies between 39 and 86 feet.

Construction debris and concrete rubble was also encountered within the fill. The soil mixed with the rubble fill consists of a variety of materials, including poorly graded gravels, clayey sand and gravels, and clay with gravel. The granular fill materials within this area appear to be loose to medium dense and did not appear to have been compacted during their original placement.

Beneath the fill, dense to very dense sand, sand with gravel, and clayey gravel were encountered.

#### *Consolidation of Compressible Soils – Southeast Zone*

The subsurface material encountered in the northern portion of this zone (the North Area) generally consists of medium stiff to hard silt and clay with varying amounts of sand and gravel. The fill within this narrow area is relatively stiff and does not appear to have any excess pore water pressure. Accordingly, consolidation-related settlement is not anticipated to occur in this portion of the zone, unless fill is added.

The southern portion of the zone contains very soft plastic clay and silt that was hydraulically placed within these basins, and which was subsequently capped with fill placed in a controlled manner. Within the western portion of the zone, consolidation related settlements may be around 2 to 4 feet, as the excess pore pressures slowly equilibrate to the regional groundwater level.

The hydraulic fill material observed in the eastern area of the zone is extremely weak and compressible, indicating the soil contains a large amount of trapped excess pore water. As the excess pore water within this layer dissipates, the soil particles will consolidate, resulting in significant settlements at the ground surface. Even if new fill and/or building loads are not applied to the site,

<sup>4</sup> Hydraulic Fill is a soil material that is pumped into place while the soil particles are suspended in water.

<sup>5</sup> Normally consolidated clays have completed consolidation under the existing load, an under-consolidated clay is still settling under its existing load, and an over-consolidated clay has previously experienced a pressure greater than its current load.

the ground surface in the East Area may settle from 1 to 24 feet. The settlement rate within a consolidating stratum depends on (1) the material characteristics, (2) depth and thickness of the compressible material, and (3) the relative distance to any drainage layers. If allowed to occur naturally, consolidation of the material in the western portion of the zone (the West Area) will likely be complete in less than 10 years, provided no new fill or building loads are placed above these soils. In the eastern portion of this zone (the East Area), if no new fill is placed, consolidation of the material will continue to occur over the next 30 to 140 years. The consolidation process can be accelerated by installing vertical wick drains to shorten the drainage path and provide an outlet for excess water.

#### *Liquefaction and Associated Hazards – Southeast Zone*

The majority of the fill in this zone has a low potential for soil liquefaction. However, in several areas of the zone, potentially liquefiable soils were encountered, intermixed with other soil materials. Within this matrix of soil, up to 43 feet of potentially liquefiable fill material was encountered in the central portion of the zone. In addition, along the southern edge of the zone, potentially liquefiable deposits were encountered interlayered with cement treated soils. The potentially liquefiable soils were from 13 to 41 feet thick. The layers of potentially liquefiable soils were observed at depths ranging from 12 to 88 feet below ground surface. Liquefaction-induced settlement in isolated areas could be up to 1.5 feet at discrete locations within the zone during and immediately following a large earthquake.

Conditions that would suggest the potential for lateral spreading or lurching have not been observed. Other potential liquefaction-induced hazards include sand boils, loss of bearing, and ground surface settlement. These phenomena should be thoroughly assessed prior to any site development.

#### *Key Site Constraints – Southeast Zone*

Any future development of this zone will need a detailed, site-specific geotechnical investigation consisting of closely spaced (100 to 125 feet) borings to evaluate the subsurface conditions beneath each planned structure. This information will be used to evaluate aerial extent of the under-consolidated soils and methods to reduce the excess pore pressure currently trapped in the soils, as well as the liquefaction potential of the subsurface soils.

As discussed above, very large total and differential settlements are expected to occur over a significant portion of the zone. Any proposed development within this area will need to consider the potential adverse impacts of large ground surface settlements on buildings and site improvements. One potential solution to the ongoing settlement is a combination of wick drains and surcharge fill, which can be used to accelerate the consolidation process and improve the short- and long-term performance of buildings and site improvements within this area. However, the installation of a wick-drain and soil surcharge program is costly.

In addition to the ongoing consolidation settlement, portions of the zone also contained considerable potentially liquefiable soils. The liquefaction hazard to proposed structures should be reduced or mitigated in these areas prior to development.

In the northern portion of the zone, the anticipated ground surface settlements are much less severe than the area where under-consolidated soils are present. It may be possible to support structures and improvements in this area (relying on the near-surface soils for support), provided the structures and improvements are designed to accommodate anticipated differential settlements associated with up to 100 feet of fill. Possible foundations include stiffened shallow foundations (such as post-tensioned mats or interconnected continuous footings) that bear on a layer of well compacted engineered fill. The stiff foundation system will help reduce the amount of anticipated differential settlement expected beneath the proposed structures.

### ***Parcels E and F***

#### *Subsurface Soil Conditions – Parcels E and F*

Parcels E and F occupy approximately 93 acres of the northwestern portion of the southern Plan Area. The parcels are bound by Lake I to the north, the Cope Lake Basin to the east, a residential housing tract to the west and Busch Road to the south.

Parcels E and F are relatively flat, with elevations ranging from 356 to 369. Until recently filled with engineered soils by the property owner, Busch Pit previously occupied about 6 acres and the pit's total depth was approximately 55 feet beneath the surrounding ground surface. The lower 10 to 15 feet of Busch Pit was previously backfilled with engineered fill in 2009 and 2010. Former side slopes of Busch Pit varied from about 3:1 (horizontal to vertical) to inclinations steeper than 1:1. Prior to backfill, many of the steeper slopes showed evidence of erosion and shallow instability.

Beneath the ground surface, about 72 to greater than 100 feet of fill underlie Parcels E and F. The elevation of the bottom of the fill ranges from approximately 250 to 290 feet. The fill varies considerably in soil type and strength, but it generally consists of medium stiff to hard silt and clay with varying amounts of sand and gravel. The fill appears to have been moisture conditioned to a relatively low moisture content and placed using mechanical equipment. At isolated areas, there are occasional layers of medium stiff clay at depth. Beneath the fill, are layers of dense clayey sand and clayey gravel.

#### *Liquefaction and Associated Hazards – Parcels E and F*

The fill is generally cohesive, although some granular deposits were encountered in localized areas (Treadwell & Rollo 2009). Typically, the granular deposits encountered were sufficiently dense to resist liquefaction during a design level earthquake and soil liquefaction at Parcels E and F should not be considered a significant hazard. However, minor amounts of post-liquefaction reconsolidation settlement may occur in isolated areas near the north, east, and southwest borders. Where observed, the potentially liquefiable layers were less than one foot thick with an average cumulative thickness of less than 4 feet. These layers were encountered at depths ranging from 7 to 94 feet deep. The post-liquefaction induced settlements would likely be less than 2 inches.

#### *Consolidation of Compressible Soils – Parcels E and F*

The fill material at Parcels E and F is variable, but it appears to have been placed in a controlled manner. Consequently, the fill is relatively stiff and does not appear to have any excess pore water pressure. Accordingly, it is not anticipated that these parcels will experience immediate consolidation-related settlement over time. However, some consolidation related settlements and

adjustment of the ground surface will occur as the localized groundwater equilibrates to the regional groundwater level. The resulting ground surface settlements are generally anticipated to be less than 0.5 foot. However, towards the southern end of the parcel, slightly softer material was encountered; estimated ground surface settlements within specific areas at this location may be up to 1.5 feet and will occur slowly over time.

#### *Key Site Issues – Parcels E and F*

Any future development of Parcels E and F would need a detailed site-specific geotechnical investigation consisting of closely (100 to 125 feet) spaced borings to evaluate the subsurface conditions beneath each planned structure. This information can be used to evaluate the liquefaction potential, potential for loss of bearing, and consolidation-related settlement associated with each structure.

Based on the information available, these parcels may be developed without restriction, provided the planned development properly addresses the anticipated consolidation and liquefaction induced settlements in the final design (Treadwell & Rollo 2009).

### **Parcel G**

#### *Subsurface Soil Conditions – Parcel G and Zone 7 Parcel*

Parcel G occupies approximately 24.2 acres and is bordered by Arroyo Mocho to the north, El Charro Road to the east, the Zone 7 parcel and Lake I to the south, and an existing residential development to the west.

Parcel G is relatively flat and has ground surface elevations ranging between approximately 348 and 353 feet. The adjacent Zone 7 parcel has ground surface elevations ranging between approximately 340 and 345 feet. The Zone 7 parcel transitions from a relatively flat grade to an approximately 3:1 (horizontal to vertical) slope or steeper at localized areas between Parcel G and Lake I.

The available subsurface information indicates that Parcel G and the Zone 7 Parcel are underlain by about 82 to 103 feet of fill. The elevation of the bottom of the fill ranges from approximately 240 to 250 feet. The fill varies in soil type and strength, but it generally consists of medium stiff to very stiff clay with varying sand and gravel content. The fill is underlain by interbedded layers of native dense sand, sandy gravel, hard clay, and very dense silty sand.

Localized groundwater levels within Parcel G will likely fluctuate with changes in the water level of Lake I.

#### *Liquefaction and Associated Hazards – Parcel G and Zone 7 Parcel*

The thick deposits of fill across Parcel G and the Zone 7 Parcel vary in soil type and strength but generally consist of medium stiff to very stiff clay with varying sand and gravel content. This fill is generally cohesive, although some granular deposits were encountered in localized areas. Typically, where granular deposits were encountered, they were sufficiently dense to resist liquefaction during a design level earthquake; therefore, soil liquefaction at Parcel G should not be considered a significant hazard requiring mitigation.



#### *Consolidation of Compressible Soils – Parcel G and Zone 7 Parcel*

Although the fill material at Parcel G and the Zone 7 parcel is variable, overall the materials appear to have been placed in a controlled manner. Consequently, the fill within Parcel G and the Zone 7 Parcel is relatively stiff and does not appear to have any excess pore water pressure. The lowermost portion of the fill material is normally consolidated under the existing site conditions, which will then be susceptible to consolidation related settlement if new fill loads or heavy structures are added to the site.

#### *Expansive Soil Considerations – Parcel G and Zone 7 Parcel*

The existing near-surface soil consists of low to highly expansive clay. Moisture fluctuations in the expansive soil could cause the soil to expand or contract resulting in movement and potential cracking of the ground surface and any surface improvements.

#### *Slope Stability – Parcel G and Zone 7 Parcel*

The southern portion of Parcel G and the adjacent Zone 7 parcel generally form the northern edge of Lake I. Stability analyses have been performed on this slope, indicating that the slope has an overall adequate static factor of safety under static conditions. Prior to development, a detailed evaluation regarding the seismic performance of the southern slopes of this parcel should be performed. This information should be provided to evaluate appropriate setback distances for future structures, if necessary.

Previous studies performed by others have also noted that erosion gullies and surficial instability of the slopes has occurred at isolated locations along the southern edge of the Zone 7 Parcel. In addition, areas of localized surficial slope instability at the northeast corner of Lake I have been attributed to groundwater seepage from the slope face.

#### *Key Site Constraints – Parcel G and Zone 7 Parcel*

The southern flank of Parcel G may experience some lateral displacement associated with seismic deformations along the Zone 7 Parcel slope during a large earthquake. Any future development of Parcel G will need a detailed, site-specific geotechnical investigation consisting of closely spaced (100 to 125 feet) borings to evaluate the subsurface conditions beneath each planned structure and assess the seismic stability of the southern slopes of Parcel G. The Zone 7 parcel, which is closer to Lake I, may also experience some lateral displacements during an earthquake, but no development is proposed on the Zone 7 parcel.

Based on the information available, these parcels may be developed; however, a setback from the southern slopes of these parcels would be required and determined by future a site-specific geotechnical investigation. The anticipated magnitude of seismic displacements within Parcel G ranges from zero to 1 foot, depending on the proximity to the southern slopes. This condition does not preclude development of Parcel G (particularly the northern portion of the parcel); however, the development of the Zone 7 Parcel may be more problematic without significant alterations/or structural improvements to the existing slopes (Treadwell & Rollo 2009). This is not considered an issue since no development is proposed on the Zone 7 parcel. Proposed foundation systems should be designed to accommodate anticipated differential settlements associated with being situated on up to 100 feet of fill.

## **Southwest Zone**

### *Subsurface Soil Conditions – Southwest Zone*

The approximately 46.1-acre Southwest Zone occupies the southwestern portion of the southern development area. This zone is bounded by Busch Road and the Cope Lake Basin to the north, the Pleasanton Transfer Station and Adjacent Parcel to the west, Stanley Boulevard and railroad tracks to the south, and the Southeast Zone to the east.

The ground surface across this zone is relatively flat with elevations ranging from about 364 to 371 feet. Beneath the ground surface, about 72 to greater than 100 feet of fill underlie the Southwest Zone. The estimated elevation of the bottom of the fill ranges from approximately 250 to 290 feet. The fill within this zone consists of a mixture of clay, silt, sand, and gravel that was placed in a controlled manner (i.e., at a relatively low moisture content using mechanical equipment) with the exception of loose to medium dense granular fill that was encountered along the western boundary, adjacent to the Pleasanton Transfer Station and Adjacent Parcel. The clayey and silty fill were found to be stiff to very stiff and the sandy and gravelly fill is generally dense to very dense. At a few isolated locations, occasional layers of medium stiff clayey fill were encountered at depth and thin saturated layers of medium dense granular soil were encountered in the fill between layers of clayey and silty fill. Beneath the fill, layers of dense clayey sand and clayey gravel were encountered.

### *Liquefaction and Associated Hazards – Southwest Zone*

The thick deposits of fill across this zone are variable and consist of a mixture of clay, silt, sand, and gravel. In general, the granular material is medium dense to dense with variable fines content.

Typically, the granular deposits were found to be dense enough to resist liquefaction during a design level earthquake. However, isolated layers of potentially liquefiable sands and gravels were encountered near the north, east, and south border of the parcel. Where observed, these layers of potentially liquefiable soils ranged in depth from 7 to 93 feet deep. On average, these layers were less than 1 foot thick, with two exceptions: (1) one potentially liquefiable layer was up to 23 feet thick near the southeastern corner of the zone, and (2) thick potentially liquefiable soils are anticipated adjacent to the Pleasanton Transfer Station.

Based on evaluation of the subsurface data, wide-spread liquefaction across this zone is not anticipated. When potentially liquefiable soil layers were encountered, they were generally found to be thin and/or were blanketed with material that is not potentially liquefiable. The likelihood of liquefaction-induced ground failure within this zone is low; therefore, no mitigation of soil liquefaction in this zone is anticipated, with the exception of the areas near the southeast corner of the parcel and in the northwest portion of the zone adjacent to the Pleasanton Transfer Station and Adjacent Parcel. At the southeast corner of the parcel, the ground may settle on the order of 0.5 foot during and following a large earthquake.

In addition, the potentially liquefiable deposits within this zone do not appear to be interconnected and are discontinuous across the site. Accordingly, the lateral extent of ground surface settlement will be isolated and random, and the hazard associated with lateral spreading is low.

### *Consolidation of Compressible Soils – Southwest Zone*

Although the fill material at this site is variable, overall the materials appear to have been placed in a controlled manner. Consequently, the fill within this zone is relatively stiff and/or dense and does not appear to have any excess pore water pressure. Accordingly, this zone will not experience immediate consolidation-related settlement over time. However, as the groundwater at the site slowly equilibrates to the regional groundwater level, some consolidation settlement of the underlying stiff clays may occur. The resulting ground surface settlements are generally anticipated to range from zero to 0.75 foot. However, slightly softer material was encountered near the southeast corner of the zone and ground surface settlements of about 2 feet are anticipated at this location. This settlement is expected to occur slowly and only if the groundwater levels within this zone equalize to the level of the regional groundwater.

### *Key Constraints – Southwest Zone*

Any future development of this zone would need a detailed site-specific geotechnical investigation consisting of closely spaced (100 to 125 feet) borings to evaluate the subsurface conditions beneath each planned structure. This information would be used to evaluate the liquefaction potential, potential for loss of bearing, and consolidation-related settlement associated with each structure.

Based on the information available, this zone may be developed; however, the areal extent of the potentially liquefiable soils near the southeastern corner of the zone and adjacent to the Pleasanton Transfer Station and Adjacent Parcel should be further evaluated and the liquefaction hazard should be addressed prior to development.

For the remaining portions of the zone, the area could be developed without restriction, provided the planned development properly addresses the anticipated consolidation and liquefaction induced settlements into the final design.

## ***Cope Lake Basin***

### *Subsurface Soil Conditions – Cope Lake Basin*

The Cope Lake Basin is located in the southeastern portion of the Plan Area, as shown on Exhibit 3.5-1. This analysis focuses on the western portion of the Basin where development is proposed. The basin is bounded by Parcels E and F and the current alignment of El Charro Road to the west, the Southwest Zone to the southwest, the Southeast Zone to the south, Arroyo Mocho to the east, and Lakes H and I to the north. The ground surface elevations within the basin vary between about 345 and 360 feet, generally slope down to the northwest, and are generally 10 to 20 feet lower than adjacent parcels.

Based on various previous studies, the Cope Lake Basin area appears to have been the last active sedimentation pond used by Hanson, which ceased quarrying activities in 2001. This area also appears to have been the outlet point for the hydraulic fill placement activities into Cope Lake. Consequently, much of the soils encountered in the vicinity of the Cope Lake Basin consist of layers of soft, compressible, under-consolidated clays; soft non-plastic silts; and loose, very fine-grained sand that appears to have been deposited using hydraulic fill placement methods. These deposits range in thickness from 77 to 125 feet, and bottom at elevations between 270.5 and 234 feet.

The one exception to this is a band of soil along the western edge of the basin, which appears to consist of native soil or soil that has been placed in a controlled manner. The hydraulic fill material generally consists of two distinct soil types: (1) soft plastic, under-consolidated to normally consolidated clays and (2) very loose fine granular deposits consisting of non-plastic silt-size and fine-sand-size particles.

The combination of thick layers of young compressible deposits and saturated fine-grained sand and non-plastic silts makes development of this area challenging. The soft, non-plastic silts and loose sand within this basin are potentially liquefiable during a major earthquake. In addition, the compressible and under-consolidated clays within the basin will continue to slowly settle over time, even if no additional fill or building loads are applied to the site. The rate at which these materials consolidate is a function of the hydraulic conductivity of the soils, the thickness of the deposits, and the soil types surrounding the hydraulic fill.

Groundwater has been measured between 16 and 87 feet beneath the existing ground surface, and is likely influenced by the water level of Cope Lake.

Along the western edge of the Cope Lake Basin, significant variations in fill thickness and soil type were encountered. The western portion of the Cope Lake Basin is likely underlain by the former western boundary of the quarry pit; therefore, significant variations in subsurface conditions are expected at short horizontal distances. After quarry activities had ended, additional fill material was placed in the southern portion of the Cope Lake Basin. Two distinct lobes of fill material can be observed on the site topography. Based on the results of subsurface investigations at the site and discussions with DeSilva Gates (the grading contractor that placed some of the fill material), it appears that the fill consists of a mixture of clay, sand, gravel, concrete rubble, and other construction debris.

At the northwestern corner of the Cope Lake parcel is small a parcel designated for Destination Use. No geotechnical subsurface information is available for this parcel, and it is unknown if the material beneath this parcel is native soil or is a result of localized fill operations following excavation activities with Cope Lake.

#### *Consolidation of Compressible Soils – Cope Lake Basin*

Similar to the Southeast Zone, the soft, plastic hydraulic fill material is extremely weak and under-consolidated in its current condition. These materials are settling under the existing overburden pressure and will continue to settle under the weight of new fill or building loads. Even if no new fill is applied, it is estimated the existing ground surface will likely settle up to five feet over the next 20 to 40 years. If fill is placed to raise grades and/or create more usable land for development, the compressible clays will consolidate significantly, resulting in large total and differential settlements.

The consolidation process can be accelerated by installing vertical wick drains to shorten the drainage path and provide an outlet for excess water.

#### *Liquefaction and Associated Hazards – Cope Lake Basin*

The layers of very loose fine granular deposits (consisting of non-plastic silt-size and fine-sand-size particles) encountered within the Cope Lake Basin are potentially liquefiable during a major earthquake. These layers were interlayered with hydraulically placed clays and silts. During a design-level earthquake, ground failures such as liquefaction-induced reconsolidation, lateral spreading, lurch cracking, and sand boils may occur at the hydraulically filled portions of the Cope Lake Basin.

Estimated liquefaction-induced settlement as much as 2.5 feet may occur during and immediately following a moderate to large earthquake. Considering that the thickness of potentially liquefiable soil deposits varies significantly, differential settlements associated with liquefaction-induced settlement may be quite large across this zone.

Based on the results of previous investigations, it appears that many of the potentially liquefiable silt and fine sand deposits at the Cope Lake Basin site are interconnected, and this zone is susceptible to lateral spreading. The lateral spreading potential of these deposits includes lateral displacements of the ground surface of up to 40 feet during a large earthquake on one of the nearby faults. The largest anticipated displacements will likely occur along the eastern and northern boundaries of the Cope Lake Basin, where the existing slopes are steepest (about 5 to 6 degrees) and the liquefiable material is thick. As a result of lateral spreading, significant disruptions to the ground surface should be anticipated, including ground loss, sand boils, and large open fissures, unless mitigation measures are implemented.

The potential for ground surface disruptions associated with lateral spreading within the Cope Lake Basin area could present a life-safety hazard to the public. Therefore, if the site is developed and made accessible to the public, then as a minimum, the potential for large-scale lateral spreading should be mitigated. Procedures to reduce the potential for lateral spreading include soil densification techniques, such as stone columns using vibratory replacement techniques, or soil solidification techniques, such as soil-cement columns to strengthen and buttress the shoreline edge of the Cope Lake Basin. Soil densification and/or solidification techniques can also be used to improve interior portions of the basin (such as along the proposed El Charro Road alignment) to reduce the potential for static ground settlement, soil liquefaction, lateral spreading, and ground failures. The approximate western boundary of fill within the Cope Lake Basin that is susceptible to large deformations (including consolidation-related settlement) is presented on Exhibit 3.5-2.

#### *Proposed El Charro Road Alignment – Cope Lake Basin*

As currently planned, the proposed El Charro Road alignment transitions from the firm soil present in Parcels E and F to weaker soils in the western portion of the Cope Lake Basin. The subsurface conditions transition from strong, undisturbed native material to weak compressible and potentially liquefiable fill that is susceptible to large vertical and lateral deformations. The engineering characteristics of the soil within the Cope Lake Basin will make roadway performance challenging, including significant consolidation-related settlement and liquefaction-induced hazards, such as lateral spreading.

Based on the results of previous investigations, to reduce the potential hazards associated with consolidation settlement and soil liquefaction, it is recommended that the proposed roadway alignment

should be west of the western boundary of fill that is susceptible to large deformations (see Exhibit 3.5-2).

Alternatively, mitigation techniques, such as vertical wick drains and surcharge fill and/or deep foundations can be used to reduce the potential hazard associated with consolidation settlement. Soil densification techniques, such as stone-columns using vibratory replacement methods or deep dynamic compaction at selected locations, or soil solidification techniques, such as soil-cement columns, can be implemented to strengthen and buttress the soil beneath the proposed El Charro Road alignment, which extends over areas underlain by hydraulically placed fill within the Cope Lake Basin. These soil improvements would be necessary to provide acceptable performance of the roadway and underlying utilities during a major seismic event.

#### *Key Constraints – Cope Lake Basin*

Any potential development within the Cope Lake Basin should provide a thorough geotechnical evaluation of the settlement and lateral spreading hazards within this portion of the site. Development of any kind, including the installation of the new El Charro Road, would require significant ground remediation/stabilization. In the absence of ground improvement/stabilization, the portions of this parcel that are susceptible to large deformations should not be developed for future use. Use of areas susceptible to large deformations as an unimproved open-space preserve would be acceptable; however, any small recreation-related buildings (such as bathrooms) would require ground improvement/stabilization to account for potential deformation. No specific constraints are identified for the Destination Use area in the northwest corner of the Cope Lake Basin.

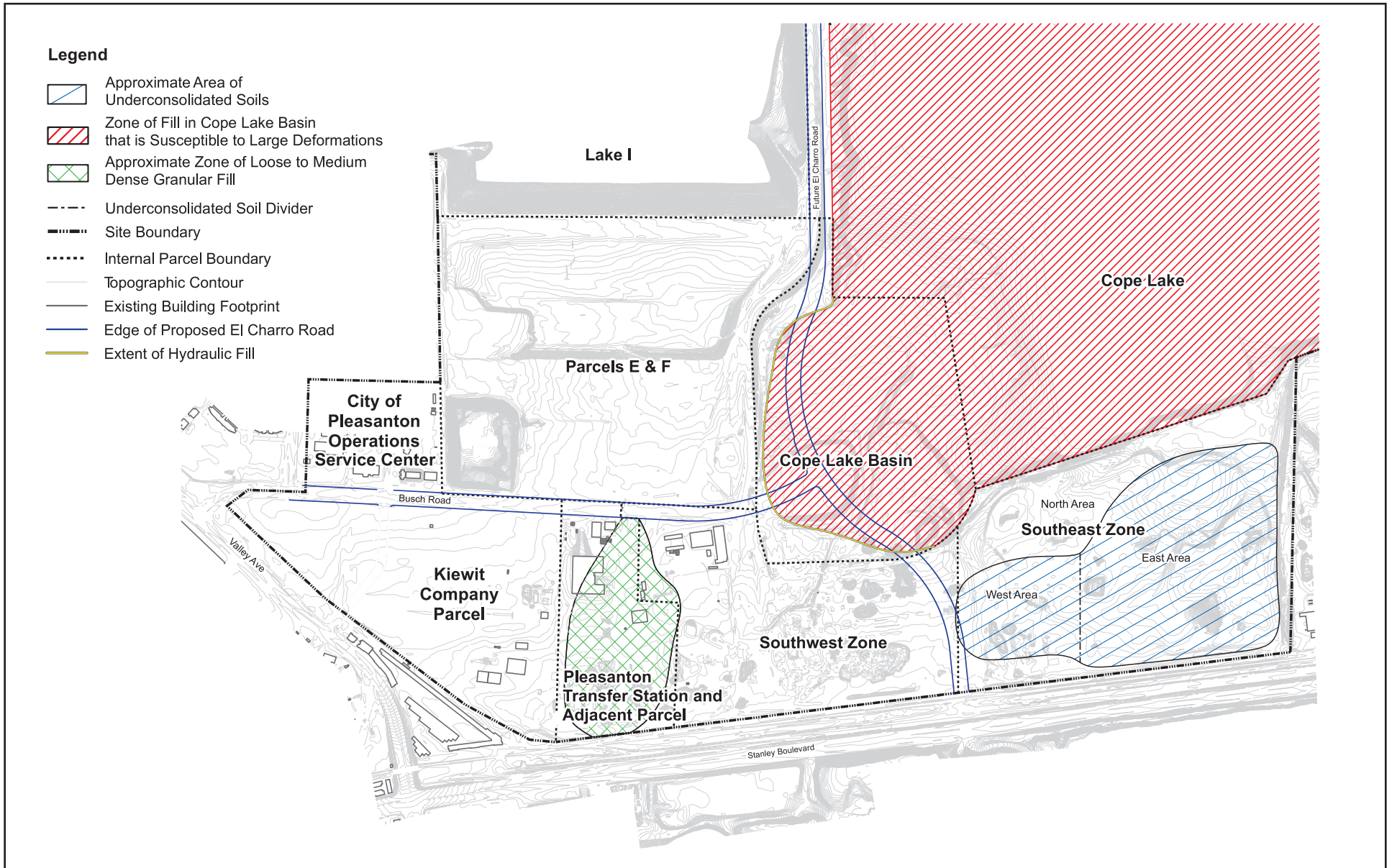
#### **Pleasanton Transfer Station and Adjacent Parcel**

##### *Subsurface Soil Conditions – Pleasanton Transfer Station and Adjacent Parcel*

The approximately 7.7-acre Pleasanton Transfer Station and Recycling Center Parcel and the 15.4-acre Adjacent Parcel are bounded by Stanley Boulevard to the south, the Southwest Zone to the east, Busch Road to the north, and the Kiewit Company parcel to the west. The Pleasanton Transfer Station and Adjacent Parcel is relatively flat, with ground surface elevations ranging from Elevation 366 to 372 feet.

The Adjacent Parcel is currently occupied by several stockpiles of aggregate and one pile of concrete debris. In addition, concrete retaining walls, buried foundations, an aluminum structure, underground utilities, cyclone fencing, and facilities associated with the old truck scale were observed on this site.

Beneath the ground surface, the fill varies between 28 and 73 feet in thickness. The fill primarily consists of clay, sandy clay and silt, clayey and silty sand, and sand and gravel with varying clay content. The granular fill materials are typically loose to medium dense; the fine-grained fill is typically medium stiff to stiff. The loose to medium dense granular fill also partially extends into the northwestern portion of the Southwest Zone. Beneath the fill, dense to very dense sand, sand with gravel, and clayey gravel with thin interbedded layers of stiff clay were encountered.



Source: Treadwell and Rollo.



## Exhibit 3.5-2 Geological Constraints - Southern Plan Area

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*Liquefaction and Associated Hazards – Pleasanton Transfer Station and Adjacent Parcel*

The thick deposits of fill across the Pleasanton Transfer Station and Adjacent Parcel are highly variable. The fill varies between 28 and 73 feet in thickness and consists of large amounts of loose to medium dense saturated granular material that will liquefy and lose strength during a major seismic event. Subsequently, differential settlement associated with liquefaction-induced ground settlement may be quite large across this parcel: estimated ground settlement of more than 1 foot is anticipated, and these settlements will likely be random and erratic unless the liquefaction hazard is mitigated prior to development.

*Consolidation of Compressible Soils – Pleasanton Transfer Station and Adjacent Parcel*

Within the Pleasanton Transfer Station and Adjacent Parcel, thin clay layers were encountered within the fill that are slightly over-consolidated to normally consolidated. Although the fill material is variable, the majority of the cohesive fill material (clayey and silty soil) appears to be relatively stiff and do not appear to have any excess pore water pressure. Accordingly, this parcel may not experience significant consolidation-related settlement over time. However, as the groundwater at the site slowly equilibrates to the regional groundwater level, some consolidation settlement of the underlying stiff clays may occur. The resulting ground surface settlements are generally anticipated to range from zero to 1 foot. However, towards the southern portion of the Adjacent Parcel, slightly softer material was encountered and ground surface settlements may exceed one foot. This settlement is expected to occur slowly as the groundwater level is allowed to equalize with the regional groundwater regime.

In addition, if new fill or heavy building loads are applied to the site, the compressible soils will experience additional consolidation-related settlement. The amount of consolidation settlement depends upon 1) the weight of the new and existing fill, (2) the thickness of the potentially compressible material within the existing fill, and (3) the consolidation characteristics of the compressible fill deposits.

*Key Constraints – Pleasanton Transfer Station and Adjacent Parcel*

The potential for ground surface disruptions associated with liquefaction-induced settlement within the Pleasanton Transfer Station and Adjacent Parcel could present significant challenges to site development. If this parcel is developed with structures, the potential for large-scale liquefaction and settlement should be mitigated. Techniques to reduce the potential for liquefaction include soil densification techniques, such as stone-columns using vibratory replacement methods, deep dynamic compaction, or conventional over excavation and recompaction of granular fill.

Even after liquefaction-induced settlement is mitigated, more than 1 foot of consolidation settlement may still occur at the site. Therefore, permanent structures should either be supported on deep foundations or be designed to accommodate significant differential settlements.

Any future development of these parcels would require a detailed site-specific geotechnical investigation consisting of closely spaced (100 to 125 feet) borings to evaluate the subsurface conditions beneath each planned structure. These borings should also further evaluate the aerial extend of the potentially liquefiable soils as well as the softer deposits previously encountered.

This information should be used to evaluate the liquefaction potential, potential for loss of bearing, and consolidation-related settlement associated with each structure.

### ***Kiewit Company and City of Pleasanton Operations Service Center Parcels***

#### *Conditions and Constraints – Kiewit Company and City of Pleasanton Operations Service Center Parcels*

The roughly triangular Kiewit Company parcel consists of 50 acres and is bounded by Busch Road to the north, the Pleasanton Transfer Station and Recycling Center and Adjacent Parcel to the east, and Stanley Boulevard and Valley Avenue to the south and west. The parcel is relatively flat, with ground surface elevations ranging from about 377 feet on the south side of the parcel to about 360 feet at the northwestern corner of the parcel. The roughly rectangular City of Pleasanton Operations Service Center Parcel is across Busch Road from the Kiewit Company parcel. The parcel consists of about 18 acres and is relatively flat, with ground surface elevations ranging from about 358 to 365 feet.

Portions of the Kiewit Company parcel were excavated to a depth of at least 50 feet, presumably mined for their underlying aggregate resources. In particular, the northern portion of the site is underlain by a 20- to 25-foot-thick layer of soft compressible clay that extended to depths of up to 50 feet beneath the existing ground surface. This soft clay is susceptible to settlement as new loads are applied and should be accounted for in the final design of structures. In addition, these parcels may have similar restrictions to future development as the adjacent parcels that have been discussed above. These constraints would depend heavily on the nature and consistency of any fill that was placed in the quarry pits. Characteristics of the fill consistencies specific to the Kiewit parcel would need to be determined prior to future development.

### ***Lakes H and I***

#### *Conditions and Constraints – Lakes H and I*

Both Lakes H and I act as groundwater recharge areas. The western portion of Lake I has gravel-lined slopes that allows for a significant amount of water recharge to occur. Because of soil conditions (most likely fine-grained soil) and smaller surface area at Lake H, only minor recharge is able to take place.

The side slopes of Lakes H and I are at about a 3:1 (horizontal to vertical) inclination and are sparsely vegetated. The lakes are on the order of 80 to 100 feet deep and provide a valuable resource for Pleasanton in their current configuration. Where proposed development of adjacent parcels extends to the edge of parcels adjacent to the existing lakes, an evaluation of the seismic stability of these slopes would need to be performed.

#### *Proposed El Charro Road Alignment – Between Lakes H and I*

The existing alignment of El Charro Road runs north-south between Lakes H and I. Evidence suggests that the material beneath El Charro Road is native ground, generally consisting of interbedded layers of sand and gravel, often separated by thin clay layers. These materials are relatively strong and capable of supporting the roadway. This roadway has been used historically for very heavy truck traffic and has performed well under these loads.

However, the ground surface slopes down steeply on both the east and west side of the current roadway. A possibility exists that some of these slopes may move somewhat during a strong

earthquake. In addition, recent ground work has been conducted across El Charro Road between Cope Lake and Lake I. The final design and layout of El Charro Road should study these slopes and develop mitigation measures if necessary.

**Summary of Constraints**

Table 3.5-3 provides a summary of identified constraints by subsurface soil zone within the Plan Area. As shown, geologic constraints consist primarily of compressible soils and liquefaction potential (including related lateral spreading), with smaller areas of potential slope stability and soil expansion issues.

**Table 3.5-3: Plan Area Subsurface Soil Zones Summary of Constraints**

Subsurface Soil Zone	Plan Area Parcel(s)	Key Constraints
Southeast Zone	11, 17 (east half)	Compressible soils, liquefaction
Parcels E and F	14, 23	compressible soils, liquefaction,
Parcel G	12	Compressible soils, expansive soils, slope stability
Southwest Zone	17 (west half)	Compressible soils, liquefaction (southeast and northeast corners)
Cope Lake Basin	9, 10, 13, 15	Compressible soils, liquefaction, lateral spreading,
Cope Lake Basin	9, 10, 13, 15	Compressible soils, liquefaction, lateral spreading,
Pleasanton Transfer Station and Recycling Center and Adjacent Parcel	18, 23, 24, 25	Compressible soils, liquefaction
Kiewit Company and City of Pleasanton Operations Service Center Parcels	19, 20, 30,31	Compressible soils, liquefaction
Lakes H and I	1, 2, 3, 4, 5, 6, 7, 8, 26, 27, 28, 29	Potential seismic related deformation along El Charro Road alignment
Source: Langan Treadwell Rollo, 2007 and 2009.		

**3.5.3 - Regulatory Framework**

**State**

**California Building Standards Code**

The California Building Standards Code (CBC) establishes building requirements for construction and renovation. The CBC is updated every three years: the most recent version was adopted in 2013 by the California Building Standards Commission and took effect January 1, 2014, and it is based on the International Code Council’s Building and Fire Codes. Included in the CBC are the Electrical Code, Mechanical Code, Plumbing Code, Energy Code, and Fire Code.

The State of California provides minimum standards for building design through the CBC (California Code of Regulations, Title 24). Where no other building codes apply, Chapter 18 regulates soils and foundations. Finally, the 2013 CBC regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

### ***California Seismic Hazards Mapping Act***

The California Seismic Hazards Mapping Act of 1990 (California Public Resources Code Section 1690-2699.6) addresses seismic hazards other than surface rupture, such as liquefaction and induced landslides. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

### ***Alquist-Priolo Earthquake Fault Zoning Act***

In response to the severe fault rupture damage of structures by the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972. This act required the State Geologist to delineate Earthquake Fault Zones along known active faults that have a relatively high potential for ground rupture. Faults that are zoned under the Alquist-Priolo Act must meet the strict definition of being “sufficiently active” and “well-defined” for inclusion as an Earthquake Fault Zone. The Earthquake Fault Zones are revised periodically, and they extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction in an Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

## **Local**

### ***City of Pleasanton***

#### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs related to geology and soils:

#### **Safety Element**

- **Goal 1:** Minimize the risks to lives and property, and minimize the potential liability to the City due to seismic activity within the General Plan Area.
  - **Policy 1:** Restrict development in areas prone to seismic safety hazards.
    - **Program 1.1:** Comply with the Alquist-Priolo Act and other seismic safety criteria established by the City of Pleasanton
  - **Policy 2:** Investigate the potential for seismic hazards during the development review process, and implement soils engineering and construction standards which minimize potential danger from earthquakes.
    - **Program 2.1:** Require site-specific soils, geologic, and/or geotechnical engineering studies prior to development approval of structures for human occupancy for any project proposed within areas shown on current Alquist-Priolo Earthquake Fault Zones Maps. For

- development within areas identified as severe through violent seismic shaking amplification (Figure 5-3: Relative Intensity of Ground Shaking) outside of the Alquist-Priolo Earthquake Fault Zone, the site-specific soils and/or geotechnical report shall address the impacts of seismic ground shaking on proposed structures, infrastructure, and ground stability.
- **Program 2.2:** Design and construct all structures to address potential seismic and geologic hazard conditions according to the California Building Code (CBC) standards or more stringent standards. All structures and facilities not addressed by the CBC shall be designed and constructed to mitigate potential seismic and geologic hazards as recommended by site-specific soils, geologic, and/or geotechnical engineering studies.
  - **Program 2.5:** Require technical review and analysis of soils, geologic, and geotechnical studies by a qualified consulting engineering geologist reporting to the City of Pleasanton. Incorporate the recommendations of the City’s consulting engineer into the project design.
  - **Program 2.6:** Require professional inspection of foundations, piers, excavation, earthwork, and other aspects of site development during construction. Ensure that all mitigations recommended by the City’s consulting engineer are incorporated into the project construction.
  - **Policy 3:** Require post-earthquake construction, if needed, to conform to all City codes and ordinances.
    - **Program 3.1:** Require building permits and enforce all current building requirements and codes for post-earthquake construction.
  - **Goal 2:** Minimize the risks to lives and property, and minimize potential liability to the City, due to geologic hazards within the Plan Area.
    - **Policy 5:** Investigate the potential for geologic hazards as part of the development review process, and maintain this information for the public record.
      - **Program 5.1:** Require site-specific soils studies for all new development prior to the issuance of building permits and prior to the approval of final improvement plans. Where there is risk of geologic hazards, the soil study should address seismic shaking, lateral spreading, differential settlement, lurch cracking, liquefaction, erosion, and expansive soils.
      - **Program 5.2:** Require site-specific geologic and/or geotechnical engineering studies prior to development approval where there is risk of the following geologic hazards: surface fault rupture, bank failures, rock falls, landslides, and for areas with slopes equal to or greater than 20 percent.
      - **Program 5.3:** Require measures to mitigate potential geologic safety hazards during adverse conditions such as saturated soils and ground shaking, and during grading of the site for roads, installation of infrastructure, and creation of building pads. Mitigation measures identified by the site engineering studies shall be incorporated into the project design.
      - **Program 5.4:** Require technical review and analysis of geotechnical studies by a qualified consulting geotechnical engineer reporting to the City. Incorporate the recommendations of the City’s consulting engineer into the project design.

- **Program 5.5:** Discourage development in areas with a high risk of geologic hazards as identified by a California licensed engineering geologist representing the City. Allow development only when geologic and soils investigations demonstrate that hazards can be mitigated by accepted engineering and construction techniques. Mitigation measures identified by the investigations shall be incorporated into the project design and subject to approval by the City’s reviewing geologist/engineer.
- **Policy 6:** Restrict new development of sites with structures intended for human occupancy in any landslide-prone or unstable area.
  - **Program 6.1:** Prohibit new development of sites with structures intended for human occupancy in any landslide-prone areas unless the landslide risk can be eliminated. Permit development in landslide prone areas only when sites can be shown to be stable during adverse conditions such as saturated soils, groundshaking, and during grading of the site for roads, installation of infrastructure, and creation of building pads. Engineering studies shall demonstrate that structures in landslide prone areas would sustain no more damage due to slope instabilities than damage sustained by a similar building in the Pleasanton Planning Area constructed to current CBC standards and located on soils with a low susceptibility to failure when exposed to moderate groundshaking.
  - **Program 6.2:** Require developers to include drainage, erosion, and landslide mitigation measures to reduce landslide potential.
  - **Program 6.3:** Design irrigation systems to minimize the potential for soil saturation, excessive run-off, and other factors deemed to contribute to slope instability.

### **Municipal Code**

Section 9.14 of the Pleasanton Municipal Code, known as the Stormwater Management and Discharge Control Ordinance establishes requirements for eliminating non-stormwater discharges to the municipal storm sewer, controlling the discharge to municipal storm sewers, separate storm sewers from spills, dumping or disposal of materials other than stormwater, and reducing pollutants in stormwater discharges to the maximum extent practicable.

### **3.5.4 - Methodology**

FirstCarbon Solutions evaluated potential impacts related to geology, soils, and seismicity through review of the Pleasanton General Plan, Pleasanton Municipal Code, seismic hazard mapping, the Natural Resources Conservation Service Web Soil Survey, and the Geotechnical Reports completed by GeoCon and Treadwell & Rollo in 2007, and Treadwell & Rollo in 2009.

### **Thresholds of Significance**

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, geology, soils, and seismicity impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would:

- 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.
  - ii. Strong seismic ground shaking.
  - iii. Seismic-related ground failure, including liquefaction.
  - iv. Landslides.
- b) Result in substantial soil erosion or the loss of topsoil.
  - c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
  - d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
  - 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. (Refer to Section 7, Effects Found not to be Significant.)

### 3.5.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

Note that the analysis contained herein is programmatic and is focused on ensuring that future development would be protected from potential effects related to geological soil conditions present including those due to previous onsite activities (quarrying). As discussed in the existing conditions section, there are unique conditions related to prior site uses and the need for site preparation (such as soil compression, excavation, and stabilization) and specific building foundation types (such as those capable of handling differential settlement) would be identified at the time of individual development approval specific to building location and uses. However, geotechnical hazards related to unique conditions would be mitigated through implementation of site preparation and engineering practices as identified in each project's required design-level geotechnical study.

#### Seismic Hazards

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**Impact GEO-1:      Development and land use activities contemplated by the Specific Plan may expose persons or structures to seismic hazards.**

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#### ***Impact Analysis***

The Plan Area is located in an area of high seismicity, as is all of the San Francisco Bay Area. Potential seismic hazards include fault rupture, strong ground shaking, and seismic-related ground failure or liquefaction. Each is discussed separately below.

### *Fault Rupture*

The Plan Area does not contain an Alquist-Priolo Earthquake Fault Zone, so neither surface rupture nor fault creep is considered a potential hazard for the Plan Area. No impact would occur.

### *Seismic Ground Shaking*

A major seismic event on one of the faults listed in Table 3.5-1 may result in severe to violent ground shaking within the Plan Area. To reduce the potential for exposure of persons and property to harm, development within the Plan Area would be required to meet the applicable seismic design standards of the California Building Standards Code. These design standards are intended primarily to protect public safety, and secondly to minimize property damage. Compliance with the seismic design standards of the California Building Standards Code and implementation of a required design-level geotechnical study would ensure that potential impacts are less than significant.

### *Liquefaction*

Liquefaction is restricted to certain geologic and hydrologic environments, primarily loose sand and silt in areas with high groundwater levels. Since much of the project site contains loose fill material, it may be susceptible to liquefaction, geotechnical investigations have revealed the presence of soft, unconsolidated, and saturated soils susceptible to seismically induced liquefaction within the Plan Area. Areas considered susceptible include portions of the Southeast Zone, the southeastern corner of the Southwest Zone, as well as the area adjacent to the Pleasant Transfer Station and Recycling Center, where the ground may settle as much as 0.5 foot during or following a large earthquake, and the majority of the Cope Lake Basin. While the fill soils were found to be sufficiently cohesive within Parcels E and F to reduce liquefaction during an earthquake, soils may still be subject to seismically induced settlement that could damage structures if not appropriately mitigated (e.g., soil modification and/or design considerations). Within Parcel G, the soil type and strength is sufficient so that liquefaction is not considered a significant hazard.

Across the majority of the Plan Area, conditions suggest a low potential for lateral spreading or lurching, with the exception of the Cope Lake Basin, where a significant lateral spreading hazard is present. Additionally, further study of this issue is recommended for the Southeast Zone prior to site development.

To reduce impacts from seismic-related ground failure, including liquefaction and lateral spreading, development within the Plan Area boundaries would need to comply with all applicable California Building Standards Code seismic design standards. In addition, in accordance with the City of Pleasanton's standard conditions of approval, development would be required to implement a design-level geotechnical study, which would include recommendations to reduce the potential for damage from ground failure as a result of seismically induced liquefaction. Potential design methodologies for mitigating liquefaction potential would be based on the depth of the severity of the hazard at each development area. Potential mitigation measures could include designing the future buildings to accommodate differential settlement, designing the buildings on stiff foundation systems, or ground improvement techniques. Compliance with building standards and implementation of mitigation measure(s) recommended in the required design-level geotechnical



study would ensure that the proposed structures would not expose persons to seismic-related ground failure hazards including liquefaction.

#### *Landslides and Slope Failure*

The majority of slopes within the Plan Area are a direct result of past mining activities and have been engineered during the reclamation process. A possibility exists that some of these slopes may move somewhat during a strong earthquake. The slope along the southern edge of Parcel G, which forms the northern edge of Lake I, is indicated to be safe under static conditions; however, further evaluation including the identification of appropriate setback distances for structures is recommended in the geotechnical studies (Treadwell & Rollo 2009). In addition, steep side slopes adjacent to the El Charro Road corridor between Lake I and Lakes H and Cope Lake may be susceptible to seismic displacement during a large earthquake. These phenomena would be evaluated as part of the implementation of a design-level geotechnical analysis for each individual development as required by the City of Pleasanton's standard conditions of approval. Incorporation and implementation of the recommendations in site-specific geotechnical studies into future development plans would ensure impacts related to landslides and slope failure would be less than significant.

The City of Pleasanton's standard conditions of approval would require proposed development within the Plan Area to complete and submit for review and approval design-level geotechnical studies. These studies should include a thorough evaluation of the potential geotechnical and seismic hazards at the site as they pertain to the future development. The City requires that all project plans comply with the recommendations of the project's geotechnical study and that a geotechnical consultant review and approve all foundation, retaining wall, and drainage geotechnical aspects of the final development plans to ensure the recommendations have been appropriately incorporated. Furthermore, the City requires that a geotechnical consultant inspect and improve all aspects of construction and be present during grading and excavation operations. The results of the inspections and the as-built conditions of each development within the Plan Area would be required to be certified in writing by the geotechnical consultant for conformance to the approved plans and geotechnical report, and submitted to the City Engineer for review and approval prior to occupancy. As such, with the implementation of standard conditions of approval, each development within the Plan Area would be required to be designed to mitigate potential impacts from seismic hazards, thereby ensuring impacts would be less than significant.

#### ***Level of Significance Before Mitigation***

Less than significant impact.

#### ***Mitigation Measures***

No mitigation is necessary.

#### ***Level of Significance After Mitigation***

Less than significant impact.

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## Erosion or Topsoil Loss

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**Impact GEO-2: Development and land use activities contemplated by the Specific Plan may result in soil erosion or the loss of topsoil.**

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### ***Impact Analysis***

The development of land uses as envisioned in the Specific Plan would require grading and excavation. During these activities, there would be the potential for surface water to carry sediment from onsite erosion into the stormwater system and local waterways. In addition, the geotechnical investigations include recommendations for the placement of additional soil on top of unconsolidated soil as a means of speeding consolidation, on the order of months to years. Thus, there is the potential for a great deal of soil to be managed onsite over a near and intermediate term. Soil erosion may occur in areas where soil is placed or stored.

Construction activities associated with the development of land uses would involve vegetation removal, grading, and excavation activities that could expose barren soils to sources of wind or water, resulting in erosion and sedimentation on and off the project site. National Pollutant Discharge Elimination System (NPDES) Phase II stormwater permitting programs regulate stormwater quality from construction sites, which includes erosion and sedimentation. Under the NPDES permitting program, the preparation and implementation of Stormwater Pollution Prevention Programs (SWPPPs) are required for construction activities more than 1 acre in size. The SWPPP must identify potential sources of erosion or sedimentation that may be reasonably expected to affect the quality of stormwater discharges as well as identify Best Management Practices (BMPs) that ensure the reduction of these pollutants during stormwater discharges. Typical BMPs intended to control erosion include sand bags, detention basins, silt fencing, landscaping, hydroseeding, storm drain inlet protection, street sweeping, and monitoring of water bodies.

Prior to construction grading, the development applicant would file a Notice of Intent to comply with the General NPDES Permit issued to the Regional Water Quality Control Board and prepare the SWPPP, which addresses the measures that would be included in the project to minimize and control construction and post-construction runoff to the “maximum extent practicable.” In addition, development within the Plan Area would be required to comply with the City Code requirements pertaining to grading and excavation.

Once completed, development projects within the Plan Area would be required to implement long-term pollution prevention measures in accordance with the City of Pleasanton Stormwater Management and Discharge Control Ordinance.

The implementation of the above requirements (including the preparation and implementation of an SWPPP and compliance with Municipal Code requirements) would ensure potential construction-related erosion impacts would be less than significant.

### ***Level of Significance Before Mitigation***

Less than significant impact.

### **Mitigation Measures**

No mitigation is necessary.

### **Level of Significance After Mitigation**

Less than significant impact.

### **Unstable Geologic Units or Soils**

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**Impact GEO-3:      Development and land use activities contemplated by the Specific Plan may expose persons or property to hazards associated with unstable geologic units or soils.**

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### **Impact Analysis**

As previously discussed, the Plan Area contains areas potentially susceptible to liquefaction, soils settlement (compressible soils) and minor areas susceptible to slope failure as a result of slopes created from past mining activities. Refer to Table 3.5-3 for a summary of unstable soil conditions. Future development would mitigate the potential for adverse impacts from unstable geologic units and soils through compliance with building code requirements, retaining walls, and landscaping.

As previously described, and as illustrated on Exhibit 3.5-2, much of the Plan Area is underlain with unconsolidated and saturated fill materials, with the potential for substantial and variable settlement over time. The Southeast Zone (southeast corner of Plan Area) has specifically been identified as containing under consolidated soils. Settlement of soils can be accelerated through near-term placement of a heavy soil overburden, and installation of drains to remove water, to better facilitate development. Depending on the site specific conditions, differing foundations (stiff foundations, or foundations supported by deep driven piles) can also be used to facilitate development on unstable soils susceptible to settlement. Areas in the west of the Cope Lake Basin, particularly along the proposed El Charro Road alignment in this area, have also been identified as compressible and potentially liquefiable. Site-specific investigations for each development within the Plan Area would identify the specific constraints and the appropriate recommendations for mitigation of site-specific conditions. Future development would also be required to comply with building code requirements to mitigate and minimize liquefaction and landslide hazards.

Implementation of the City's standard conditions of approval for each development within the Plan Area would require a design-level geotechnical study to be completed, which would include preventative measures for site-specific soil conditions. With application of resulting geotechnical recommendations such as appropriate soil modifications and/or appropriate foundation design, development would not expose people or hazards to unstable geologic units or soils and impacts would be less than significant.

### **Level of Significance Before Mitigation**

Potentially significant impact.

### **Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Expansive Soils**

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**Impact GEO-4:           Development and land use activities contemplated by the Specific Plan may expose persons or structures to hazards associated with expansive soils.**

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**Impact Analysis**

The existing near-surface soil in Parcel G consists of low to highly expansive clay. Moisture fluctuations in the expansive soil could cause the soil to expand or contract resulting in movement and potential cracking of the ground surface. Potential causes of moisture fluctuations include seasonal changes in temperature, drying during construction, and subsequent wetting from rain, capillary rise, and landscape irrigation. Expansive soils have not been identified in other portions of the Plan Area, but could exist nonetheless. With the implementation of the City’s standard condition of approval requiring a design-level geotechnical study, the proposed project would either remove soils present or manage existing soils in order to reduce impacts to a level considered less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

## 3.6 - Greenhouse Gas Emissions

### 3.6.1 - Introduction

This section addresses the potential impacts to greenhouse gas and climate change associated with implementation of the Specific Plan within the Plan Area and its surroundings. Greenhouse gas impacts were evaluated for plan-level impacts from long-term operational emissions of the Base Plan. FirstCarbon Solutions performed greenhouse gas analyses for the Base Plan, which includes qualitative assessment of plan compliance, and greenhouse gas emissions modeling. The analysis files, including modeling outputs, are provided in Appendix B.

### 3.6.2 - Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs). The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. Without the natural heat trapping effect of GHGs, the earth's surface would be about 34 degrees Celsius (°C) cooler (about 61 degrees Fahrenheit [°F] cooler). However, it is believed that emissions from human activities have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Increased GHGs result in an increased greenhouse effect and could result in changes to the climate. The United Nations Intergovernmental Panel on Climate Change constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The Intergovernmental Panel on Climate Change predicted that global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1°C to 6.4°C (2.0°F to 11.5°F). Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a GHG compared with the reference gas, carbon dioxide.

Individual GHG compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent metric. Methane's warming potential of 21 indicates that methane has a 21 times greater warming affect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual GHG multiplied by its global warming potential.

GHGs as defined by Assembly Bill (AB) 32 include the gases shown in Table 3.6-1.

**Table 3.6-1: Description of Major Greenhouse Gases**

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
Carbon dioxide	Carbon dioxide (CO <sub>2</sub> ) is an odorless, colorless, natural GHG. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Hydrofluorocarbons	Hydrofluorocarbons are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Sources: Compiled from a variety of sources, primarily Intergovernmental Panel on Climate Change 2007a and 2007b.		

## Greenhouse Gas Emissions Inventory and Trends

Emissions of GHGs worldwide were approximately 49,000 million metric tons of carbon dioxide equivalents (MMT<sub>CO<sub>2</sub>e</sub>) in 2004, and GHG emissions in the U.S. were 7,074.4 MMT<sub>CO<sub>2</sub>e</sub>.

California is the second largest contributor of GHGs in the U.S. and the sixteenth largest in the world. In 2004, California produced 500 MMT<sub>CO<sub>2</sub>e</sub> of GHG emissions, including emissions from imported electricity and excluding combustion of international fuels and carbon sinks or storage, which is approximately seven percent of U.S. emissions. According to the California Air Resources Board’s (ARB’s) recent GHG inventory for the State, the single largest source of GHGs in California is on-road transportation, contributing approximately 38 percent of the State’s total GHGs emissions in 2010 and 2011. Electricity generation (both in and out of state) is the second largest source, contributing 25 percent of the State’s GHG emissions. The inventory for California’s GHG emissions between 2000 and 2008, by even years, is presented in Table 3.6-2.

**Table 3.6-2: California Greenhouse Gas Inventory 2000–2011**

Main Sector <sup>1</sup>	Emissions MMT <sub>CO<sub>2</sub>e</sub>						
	2000	2002	2004	2006	2008	2010	2011
Agriculture	29.04	32.39	32.57	33.95	33.88	31.68	32.24
Commercial	13.99	14.18	14.15	14.56	15.56	15.75	15.62
Electricity Generation <sup>2</sup>	104.86	108.65	115.20	104.54	120.15	90.09	86.57
High GWP <sup>3</sup>	7.11	7.25	8.53	9.86	11.48	14.15	15.17
Industrial	95.81	94.42	95.73	91.88	89.27	91.00	93.24
Recycling and Waste <sup>4</sup>	6.14	6.20	6.33	6.51	6.69	6.94	7.00
Residential	29.65	28.88	29.45	28.54	29.03	29.38	29.85
Transportation – On-road	162.97	169.72	171.83	172.56	162.30	157.57	155.11
Transportation – Non-road <sup>5</sup>	13.32	14.14	15.38	16.78	14.86	13.04	13.31
<b>Total</b>	<b>462.90</b>	<b>475.82</b>	<b>489.18</b>	<b>479.18</b>	<b>483.22</b>	<b>449.59</b>	<b>448.11</b>

Notes:  
<sup>1</sup> Excludes military sector, aviation and international marine bunker fuel  
<sup>2</sup> Includes In-state electricity generation and imported electricity  
<sup>3</sup> Includes substitutes for ozone depleting solvents, SF<sub>6</sub> losses from electricity grids and semiconductor manufacturing  
<sup>4</sup> Consists of emissions from landfills and composting process  
<sup>5</sup> Includes equipment used in construction, mining, oil drilling, industrial and airport ground operations  
Source: California Air Resources Board, 2013.

In addition to the state-level GHG emission inventory that was prepared by ARB, BAAQMD prepared a GHG emissions inventory for the Air Basin, as well as for each county or portion of county therein. In 2007, the San Francisco Air Basin produced 96 MMT<sub>CO<sub>2</sub>e</sub> of GHG emissions. Of that amount, Alameda County produced 16 MMT<sub>CO<sub>2</sub>e</sub>. The emission inventory included direct and indirect GHG emissions due to human activities. The inventory estimates direct and indirect emissions for the base year of 2007 from major GHGs, which include carbon dioxide, methane, nitrous oxides, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The activity data reflects current industrial activity, motor vehicle travel, and economic and population growth. The Air Basin and Alameda County GHG inventories for 2007 are presented in Table 3.6-3.

**Table 3.6-3: Air Basin and Alameda County Greenhouse Gas Inventories**

Main Sector *	San Francisco Bay Area Air Basin		Alameda County	
	GHG Emissions MMTCO <sub>2</sub> e	Percent of Annual Inventory	GHG Emissions MMTCO <sub>2</sub> e	Percent of Annual Inventory
Agriculture/Farming	1.11	1.2%	0.11	0.7%
Industrial/Commercial	34.86	36.4%	3.29	21.0%
Electricity/Co-Generation *	15.20	15.9%	2.00	12.8%
Off-Road Equipment	2.92	3.1%	0.57	3.6%
Residential Fuel Usage	6.82	7.1%	1.34	8.6%
Transportation	34.87	36.4%	8.35	53.3%
<b>Total</b>	<b>95.78</b>	<b>100.0%</b>	<b>15.66</b>	<b>100.0%</b>

Note:  
\* Includes emissions from imported electricity  
Source: Bay Air Quality Management District, 2010.

The inventory found that the majority of GHG emissions in the Bay Area were generated by the transportation sector and industrial and commercial sector, with each contributing approximately 36 percent of the total emissions inventory. In 2007, Alameda County emitted 15.66 million MTCO<sub>2</sub>e, which is 16 percent of the GHG emissions in the Air Basin.

The City of Pleasanton completed a GHG inventory for the year 2005, as well as projected emissions for 2020, as contained within the City of Pleasanton Climate Action Plan adopted February 2012. The BAAQMD provided comment on January 6, 2012, stating that the City's Climate Action Plan meets the BAAQMD's minimum standard elements of a Qualified GHG Reduction Strategy.

The City's 2005 and 2020 GHG inventories are provided in Table 3.6-4. The table shows the majority of GHGs within the City of Pleasanton are generated by the transportation sector, followed by energy use for commercial and industrial uses.



**Table 3.6-4: Pleasanton GHG Inventory by Sector**

Community Sector*	Year 2005		Year 2020	
	Emissions MTCO <sub>2</sub> e	Percent of Inventory	Emissions MTCO <sub>2</sub> e	Percent of Inventory
Transportation (on-road)	401,550	52.1%	481,769	50.1%
Transportation (off-road)	25,410	3.3%	28,459	3.0%
Commercial/Industrial Electricity	105,107	13.6%	163,183	17.0%
Commercial/Industrial Natural Gas	46,753	6.1%	72,622	7.6%
Residential Electricity	46,881	8.7%	74,686	7.8%
Residential Natural Gas	66,684	6.1%	52,506	5.5%
Solid Waste Disposal	38,8226	5.0%	43,482	4.5%
Water and Wastewater Systems	34,264	4.4%	38,489	4.0%
Municipal Operations	5,370	0.7%	6,354	0.7%
<b>Total</b>	<b>770,844</b>	<b>100.0%</b>	<b>961,549</b>	<b>100.0%</b>

Source: City of Pleasanton, 2012.

**Potential Environmental Effects**

In California, climate change may result in consequences such as the following (from California Climate Change Center 2006 and Moser et al. 2009).

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant “fuel” available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today’s conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.

- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California’s coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California’s forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

#### *Inundation by Sea Level Rise*

The Pacific Institute—with support from the California Energy Commission, the California Department of Transportation, and the Ocean Protection Council—prepared impact maps showing the potential extent of coastal flooding and erosion under one scenario that involved a sea level rise of 1.4 meters (55 inches). This scenario represents the medium to high greenhouse gas emissions scenarios, but does not reflect the worst-case that could occur. The scenario estimates that the 1.4-meter sea-level rise would occur by 2100. The impact maps were prepared for and are available in the document, *Impacts of Sea-Level Rise on the California Coast*. However, the Specific Plan area is over 300 feet above mean sea level. Therefore, the Plan Area is sufficiently elevated and would not be inundated by the projected sea level rise.

### **3.6.3 - Regulatory Framework**

Climate change is caused by greenhouse gases emitted all around the world from a variety of sources, including the combustion of fuel for transportation and heat, cement manufacturing, and refrigerant emissions. International and federal agreements have been enacted to deal with climate change issues. The State of California has enacted key legislation in an effort to reduce its contribution to climate change, as discussed below.

#### **National**

Prior to the last decade, there have been no concrete federal regulations of greenhouse gases or major planning for climate change adaptation. The following are actions regarding the federal government, greenhouse gases, and fuel efficiency.

**Greenhouse Gas Endangerment.** *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the United States Environmental Protection Agency (EPA) regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of greenhouse gases

from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles, as discussed in the section “Clean Vehicles” below.

The EPA denied ten petitions for Reconsideration of the Endangerment and Cause or Contribute Findings in 2010. Some of the petitioners included the Ohio Coal Association, Peabody Energy Company, and the State of Texas.

In September 2011, the EPA Office of Inspector General evaluated the EPA’s compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.

In June 2012, a federal appeals court rejected a lawsuit by thirteen states against the EPA (*Coalition for Responsible Regulation v. EPA*). The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations Intergovernmental Panel on Climate Change rather than doing its own research or testing data according to federal standards. The states include Virginia, Texas, Alabama, Florida, Hawaii, Indiana, Kentucky, Louisiana, Mississippi, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, and Utah.

**Clean Vehicles.** Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation’s National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide

level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The EPA and the National Highway Safety Administration are working on a second-phase joint rulemaking to establish national standards for light-duty vehicles for model years 2017 and beyond.

On September 15, 2015, the EPA and the U.S. Department of Transportation adopted the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies now require that an up to a 20 percent reduction in carbon dioxide emissions and fuel consumption be achieved by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies now require separate gasoline and diesel truck standards, to achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies now require engine and vehicle standards that will achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

**Cap and Trade.** Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NO<sub>x</sub> Budget Trading Program in the northeast. There is no federal cap and trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Regional Greenhouse Gas Initiative is an effort to reduce greenhouse gases among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional greenhouse gas emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Its cap and trade program is estimated to be fully implemented in 2015.

## State

The State has enacted several key pieces of regulation, some of which are discussed below.

**AB 32.** In 2006, the California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG emissions in California. GHGs as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. ARB is the state agency charged with monitoring and regulating sources of GHG emissions that cause global warming in order to reduce them. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

ARB approved the 1990 GHG emissions level of 427 MMTCO<sub>2</sub>e on December 6, 2007. Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO<sub>2</sub>e. Emissions in 2020 in a “business as usual” scenario are estimated to be 596 MMTCO<sub>2</sub>e.

ARB approved the Climate Change Scoping Plan in December 2008. The Scoping Plan contains a set of measures designed to reduce the State’s emissions to 1990 levels by the year 2020. The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors.

*Title 24 and California Green Building Standards.* Although these regulations are not specifically enacted to reduce greenhouse gases, they increase energy efficiency for new buildings, thus indirectly reducing greenhouse gas emissions. All buildings for which an application for a building permit is submitted on or after January 1, 2014 must follow the 2013 Standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. The 2013 Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for non-residential construction, as well as require “solar-ready roofs” to accommodate future installation of solar photovoltaic panels. The 2013 Standards also include updates to the energy efficiency divisions of the California Green Building Code, which is discussed in detail below.

*California Green Building Code Standards.* On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code (Green Building Code), which went into effect on January 1, 2011. The energy efficiency components of the 2010 Green Building Code were updated as part of the 2013 Standards, which were effective January 1, 2014. The Green Building Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings.

The Green Building Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Green Building Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard, which buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The following California Green Building Standards Code requirements (code section in parentheses) reduce greenhouse gas generation through promoting alternative modes of travel, decreased water and energy consumption, decreased waste generation, and increased energy efficiency:

- Short-term bicycle parking. If a commercial project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack (5.106.4.1).
- Long-term bicycle parking. For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space (5.106.4.2).
- Designated parking. Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.6.2 (5.106.5.2).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.
- Construction waste. A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and 75 percent for new homes and 80-percent for commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.
- Wastewater reduction. Each building shall reduce the generation of wastewater by one of the following methods:
  1. The installation of water-conserving fixtures or
  2. Using nonpotable water systems (5.303.4).
- Water use savings. 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35, and 40-percent reductions.
- Water meters. Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day.
- Irrigation efficiency. Moisture-sensing irrigation systems for larger landscaped areas.
- Building commissioning. Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.

*Pavley Regulations and Fuel Efficiency Standards.* AB 1493, enacted on July 22, 2002, required ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks.

The standards phase in during the 2009 through 2016 model years. It is expected that the standards will result in about a 30-percent reduction in 2016 when compared to the 2002 fleet. Several technologies stand out as providing significant reductions in emissions at favorable costs. These

include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

## **Regional**

### ***Bay Area Air Quality Management District***

The BAAQMD has established a Climate Action Program in 2005 to integrate climate protection activities into existing BAAQMD programs. As part of this program, the BAAQMD developed the Climate Action Web Portal for local governments to access tools and resources for climate change activities, including best practices, case studies, and news and events from local governments. In addition, the BAAQMD prepared a greenhouse gas emissions inventory for the area under its jurisdiction, along with a county-level breakdown of greenhouse gas emissions in the basin.

In 2008, the BAAQMD approved a fee on stationary air pollution sources in its jurisdiction to help defray the costs associated with the BAAQMD's climate protection activities and programs, including environmental review, air pollution regulations, and emissions inventory development. Industrial facilities and businesses that are currently required to submit an air quality permit to operate will have a fee of 4.4 cents per metric ton of greenhouse gas emissions added to their permit bill.

In addition, the BAAQMD updated its California Environmental Quality Act Air Quality Guidelines in 2010 to include both numeric and qualitative greenhouse gas thresholds and recommended assessment methodologies for project- and plan-level analyses. On March 5, 2012, the Alameda County Superior Court issued a judgment finding that BAAQMD failed to comply with CEQA when it adopted the 2010 Thresholds. The Court did not determine whether the 2010 Thresholds were valid on the merits, but found that the adoption of the 2010 Thresholds was a project under CEQA. The Court issued a writ of mandate ordering BAAQMD to set aside the 2010 Thresholds and cease dissemination of them until they had complied with CEQA. BAAQMD appealed the Alameda County Superior Court's decision and the case went to the Court of Appeal, First Appellate District. The Court of Appeals has ruled that new or revised thresholds of significance adopted by BAAQMD are not a "project" under CEQA and, therefore, are not required to comply with CEQA requirements.

After the Alameda County Superior Court's Decision, BAAQMD stopped recommending the 2010 Thresholds be used as a generally applicable measure of a project's significant air quality impacts. BAAQMD released a new version of their Guidelines in May 2012 in which the 2010 Thresholds were removed. BAAQMD, however, recommends that lead agencies determine appropriate air quality thresholds of significance based on substantial evidence in the record.

### ***Metropolitan Transportation Commission and Association of Bay Area Governments***

In July 2013, the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) jointly approved Plan Bay Area, which includes the region's Sustainable Communities Strategy and the 2040 Regional Transportation Plan, and the associated Final EIR. Two of the ten "targets" of Plan Bay Area address the requirements of Senate Bill (SB) 375, The California Sustainable Communities and Climate Protection Act of 2008 (Steinberg).

The first two targets are required by SB 375, and address the respective goals of climate protection and adequate housing:

- Reduce per-capita carbon dioxide emissions from cars and light-duty trucks by seven percent by 2020 and by 15 percent by 2035.
- House 100 percent of the region’s projected 25-year growth by income level (very low, low, moderate, above moderate), without displacing current low-income residents.

Four lawsuits were filed against Plan Bay Area with the Alameda County Superior Court in 2013 by (1) Bay Area Citizens, (2) Communities for a Better Environment and the Sierra Club, (3) the Building Industry Association of the Bay Area, and (4) the Post-Sustainability Institute. In the Post-Sustainability Institute lawsuit, the plaintiff claimed that Plan Bay Area violates private property rights as well as CEQA requirements. In March 2014, the Building Industry Association of the Bay Area dropped its lawsuit against the plan in exchange for a commitment that the agencies do more to plan for housing growth in the 2017 plan. In June 2014, the Sierra Club, Communities for a Better Environment, and Earthjustice dropped their lawsuit against the agencies after they secured a commitment from the regional planning agencies to do more in the next plan in 2017 to explain pollution reductions from the regional plan. The Alameda County Superior Court entered an order in January 2015 that denied the Post Sustainability Institute’s Petition for Writ of Mandate under CEQA, but did not address the other claims and causes of action alleged under the lawsuit, which are to be addressed separately in further proceedings.

## Local

### *City of Pleasanton*

#### *General Plan*

The Pleasanton General Plan contains an Air Quality and Climate Change Element, which sets forth the following goals, policies, and programs that are relevant to greenhouse gas emissions. In addition, General Plan Appendix A contains a detailed list of Greenhouse Gas Reduction Measures contained throughout the General Plan.

- **Goal 2:** Promote sustainable development and planning to minimize additional air emissions.
  - **Policy 6:** Reduce air pollution and the production of greenhouse gases by increasing energy efficiency, conservation, and the use of renewable resources.
  - **Policy 7:** Provide leadership to Pleasanton residents and businesses by implementing all technology-based air-pollutant reduction programs that are reasonable and feasible.
    - **Program 7.2:** Continue to properly maintain the City vehicle fleet to insure as-designed vehicle operation. Proper preventative maintenance includes regular tune-ups, filter replacements, and engine diagnosis.
    - **Program 7.3:** As resources allow, continue and increase police bicycle patrols.
    - **Program 7.4:** As the City replaces landscaping equipment, gas cans, street sweepers, and other electrical and mechanical equipment, consider purchasing the least polluting equipment available.



- **Program 7.5:** Postpone activities that contribute to air emissions on Spare the Air Days. Activities include: use of fossil fuel-powered landscaping equipment; surface coating and paint projects; and refueling vehicles. Reschedule vehicle trips, if feasible, without impacting project deadlines.

The City of Pleasanton adopted a Climate Action Plan in 2012 as the primary implementation strategy for its greenhouse gas policies. The Climate Action Plan contains:

- Baseline and future year emission inventories for the community and local government operations;
- Emission reduction estimates from potential reduction measures and strategies;
- Emission reduction targets for 2020 and 2025;
- Description of strategies selected to achieve targets; and
- An implementation plan with mechanisms for monitoring and course corrections.

The BAAQMD has deemed the City’s Climate Action Plan a “Qualified” plan under the criteria of its 2010-adopted California Environmental Quality Act Air Quality Guidelines.

### 3.6.4 - Methodology

The purpose of BAAQMD’s Guidelines is to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the Basin. The Guidelines contain guidance on how to determine the significance of a project’s emissions of GHGs. This analysis follows the guidance in the Guidelines where appropriate. Based on substantial evidence in the record, BAAQMD’s 2010 Thresholds for plan-level impacts were utilized for this document. To the degree applicable, the 2011 Guidelines (which contain the 2010 Thresholds) were used in the impact analysis.

### Thresholds of Significance

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether greenhouse emissions impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the Base Plan:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

### 3.6.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

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## Greenhouse Gas Emissions

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**Impact GHG-1: Development and land use activities contemplated by the Specific Plan would generate direct and indirect GHG emissions; however, these emissions would not result in a significant impact on the environment.**

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### *Impact Analysis*

BAAQMD provides multiple options in its 2010 Thresholds for plan-level GHG generation from Base Plan operation. Prior to the 2010 Air Guidance document, BAAQMD did not have an adopted threshold of significance for GHG emissions. BAAQMD does not currently provide a construction-related GHG threshold. The thresholds suggested in BAAQMD's 2010 Guidance document for plan-level operational GHG generation are:

- Compliance with a qualified GHG Reduction strategy, or
- 6.6 metric tons of CO<sub>2</sub> equivalent per service population (employees plus residents).

The applicable plan, as discussed in the Regulatory Setting, is the City of Pleasanton's Climate Action Plan. As the Climate Action Plan is considered a qualified greenhouse gas reduction strategy by BAAQMD, compliance with the City's Climate Action Plan will be applied as the threshold for the Base Plan's generation of GHGs.

### *Emissions Inventory*

This analysis is restricted to GHGs identified by AB 32, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The Base Plan would generate a variety of GHGs during construction and operation, including several defined by AB 32 such as carbon dioxide, methane, and nitrous oxide.

Other GHGs defined by AB 32 may or may not be emitted by the Base Plan. Hydrofluorocarbons (HFCs) are synthetic gases used in refrigeration, air conditioning, insulating foams, solvents, aerosol products, and fire protection. ARB is focused on reducing HFCs from two central themes: (1) use of lower-GWP alternatives for certain consumer products and new motor vehicle air conditioning systems, and (2) avoiding releases of currently used high-GWP gases, using gas recovery options, such as those for electrical transmission and particle accelerators, and leak tightness specifications. There is currently no methodology for estimating HFC emissions from consumer product use or vehicle air conditioning systems at a project level. In addition, the Base Plan would not include the construction of electrical transmission stations or particle accelerators.

Perfluorocarbons are typically associated with aluminum production and manufacturing of semiconductors. Sulfur hexafluoride is typically used in electronics manufacturing, electrical utilities facilities, and magnesium production industries. The Specific Plan allows for future development of light industrial land uses. However, it is currently unknown what types of light industrial uses may be located within the Plan Area. Estimating potential perfluorocarbon or sulfur hexafluoride emissions from future industrial land uses would be speculative at this time. Therefore, these pollutants are not included in the emissions inventory. However, future Industrial operations may include industries that emit these pollutants. Implementation of Mitigation Measure GHG-1 would require

the assessment of potential industrial greenhouse gas emissions once specific industries are proposed, and reduce potential impacts to less than significant.

#### **Construction Emissions**

The Base Plan would emit GHGs from upstream emission sources and direct sources (combustion of fuels from worker vehicles and construction equipment).

An upstream emission source (also known as life cycle emissions) refers to emissions that were generated during the manufacturing of products to be used for construction of the Base Plan. Upstream emission sources for the Base Plan include but are not limited to the following: emissions from the manufacturing of cement, emissions from the manufacturing of steel, and/or emissions from the transportation of building materials to the seller (because CalEEMod only estimates the transportation of building materials locally). The upstream emissions were not estimated because they are not within the control of the Base Plan and to do so would be speculative at this time. Pursuant to CEQA Guidelines Sections 15144 and 15145, upstream/life cycle emissions are speculative and no further discussion is necessary.

The emissions of carbon dioxide from Base Plan construction equipment and worker vehicles were not estimated because the development timeline and construction components are unknown, and would be speculative at this time. Furthermore, BAAQMD does not have a recommended assessment methodology or threshold for plan-level, construction-generated GHGs.

#### **Operational Emissions**

The City of Pleasanton's 2010 Climate Action Plan adopted the greenhouse gas reduction goal equivalent to 15 percent below its 2005 community-wide baseline, which is more aggressive than the alternative threshold target of 6.6 MTCO<sub>2</sub>e per service population per year.

The Base Plan's operational emissions were estimated using CalEEMod using the trip generation estimates provided in the Transportation Impact Analysis prepared by Fehr and Peers (Appendix H) for 2005 and 2020. The 2005 scenario represents the greenhouse gas emissions that would have occurred from the project without AB 32 regulations that have taken effect. The 2020 emissions represent the project's emissions post-regulations. Trip reductions attributable to internal capture and alternative transit use were utilized by reducing the per-land use trip generation accordingly. The resulting greenhouse emissions estimations are provided in Table 3.6-5. The CalEEMod output is provided in Appendix B. As demonstrated in Table 3.6-5, the Base Plan would exceed the City's GHG reduction goal. Therefore, impacts would be less than significant. The Base Plan's efficiency metric (emissions per service population) is provided in Table 3.6-5 for informational purposes.

**Table 3.6-5: Operational CO<sub>2</sub> Generation (Year 2020)**

Emission Source	MTCO <sub>2</sub> e	
	Year 2005	Year 2020
<b>North Plan Area</b>		
Area (Landscaping Equipment, Natural Gas, etc.)	0	0
Energy	2,398	1,677
Mobile (Vehicles)	5,808	5,075
Waste	152	123
Water	193	130
<i>Subtotal</i>	<i>8,551</i>	<i>7,006</i>
<b>South Plan Area</b>		
Area (Landscaping Equipment, Natural Gas, etc.)	257	257
Energy	11,414	9,799
Mobile (Vehicles)	24,801	20,590
Waste	1,462	1,462
Water	1,180	1,011
<i>Subtotal</i>	<i>39,116</i>	<i>33,121</i>
Total Specific Plan Emissions	47,667	40,127
Service Population		7,584
Project 2020 Emissions per service population		5.29
<b>Project Reduction from 2005 Baseline</b>		<b>15.8%</b>
<b>City of Pleasanton CAP Threshold</b>		<b>15%</b>
<b>Significant Impact?</b>		<b>No</b>
Note: MTCO <sub>2</sub> e = metric tons of carbon dioxide equivalent. Source: CalEEMod output (Appendix A).		

**Conclusion**

The Base Plan's operational emissions would be less than the BAAQMD's plan-level greenhouse gas threshold, and would meet the City of Pleasanton's 2010 Climate Action Plan emission reduction goal. Accordingly, the Base Plan's greenhouse gas impact would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

### **Level of Significance After Mitigation**

Less than significant impact.

### **Greenhouse Gas Reduction Plan Consistency**

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**Impact GHG-2:**      **Development and land use activities contemplated by the Specific Plan would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHGs.**

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#### **Impact Analysis**

To address this potential impact, Base Plan consistency with the City of Pleasanton Climate Action Plan and ARB’s Scoping Plan are discussed below.

##### *City of Pleasanton Climate Action Plan*

The City of Pleasanton adopted its Climate Action Plan in February 2012. The Climate Action Plan identifies policies that will achieve the state-recommended GHG reduction target of 15 percent below baseline 2005 levels by the year 2020. The City’s Climate Action Plan is considered a qualified reduction strategy under BAAQMD guidance. The Climate Action Plan provides goals and associated measures, where each goal is tied to a specific reduction of GHG emissions as well as energy use, transportation, and waste reductions.

One of the Specific Plan’s land use objectives is to implement sustainable land use planning techniques that increase transit use, walking, and bicycle riding which reducing energy usage and the emission of GHGs. The Specific Plan also includes transportation planning objectives that encourage sustainable travel alternatives that do not require fossil-fuel consumption and provide alternative vehicular travel throughout the Plan Area through the use of the “Complete Streets” concept. In addition, the Specific Plan also promotes the reduction of solid waste through re-use, recycling, composting, and other transformation of wastes. Consistent with these objectives, the Specific Plan’s design encourages development that results in reduced GHG emissions. As demonstrated in Impact GHG-1, the Base Plan would achieve the Climate Action Plan’s goal of 15 percent reduction from 2005 baseline. Therefore, the Specific Plan would be consistent with the Climate Action Plan.

In addition, the Base Plan would not exceed the BAAQMD’s threshold for plan-level greenhouse gas generation. As provided by BAAQMD:

BAAQMD’s approach to developing a Threshold of Significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move us towards climate stabilization. If a project would generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact, and would be considered significant.

Therefore, if a project is less than BAAQMD’s threshold of significance for GHGs, it stands to reason that the project would not substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. As shown in Impact GHG-1, the Base Plan would not exceed BAAQMD’s

threshold of significance for GHG emissions and would result in a less than significant impact. Therefore, the Base Plan would not substantially conflict with the emission reduction requirements of AB 32.

***Level of Significance Before Mitigation***

Less than significant impact.

***Mitigation Measures***

No mitigation is necessary.

***Level of Significance After Mitigation***

Less than significant impact.

## 3.7 - Hazards and Hazardous Materials

### 3.7.1 - Introduction

This section describes the existing hazards and hazardous materials setting and potential effects from implementation of the Specific Plan on the Plan Area and its surroundings. Descriptions and analysis in this section are based on the City of Pleasanton General Plan, a Phase I Environmental Site Assessment (prepared for portions of the Plan Area), a Soil and Groundwater Investigation Report, and a database search performed by Environmental Data Resources, Inc., included in this EIR as Appendix E.

### 3.7.2 - Environmental Setting

#### Hazardous Materials

Hazardous materials, as defined by the California Code of Regulations, are 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.

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. 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. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

#### **Record Search**

Environmental Data Resources (EDR) conducted record searches in October 2012 of federal, state, and local databases associated with hazardous materials usage. The search yielded 34 records for properties within the Specific Plan boundaries. Table 3.7-1 summarizes selected sites that are notable in terms of hazardous materials activities or release events.

**Table 3.7-1: Selected Hazardous Materials Sites**

Site Number	Source	Address	Database(s)	Remarks
1	Kaiser Sand & Gravel Company	3000 Busch Road	UST	USTs present onsite; no spills or leaks reported
2	Granite Construction	3000 Busch Road	EMI	No spills or leaks reported
3–7	Hanson Aggregates Mid Pacific, Inc./Hanson Aggregates Radum Plant	3000 Busch Road	HIST CORTESE, LUST, SLIC, ALAMEDA CO. CS, SWEEPS UST, HAZNET	Facility listed as disposing of waste oil. Leaking UST; case closed in 1998; reported petroleum hydrocarbons detected in soils and groundwater: open site assessment status since 2008; a Revised Closure Plan was conditionally approved as of May 15, 2013. Remediation has been completed and final paperwork processing is underway with Alameda County Health Care Services.
8	Pleasanton Truck and Equipment	3110 Busch Road	LUST, HAZNET, TSD	Leaking UST - case closed in 1995.
9	Pleasanton Transfer Station and Recycling Center	3110 Busch Road	UST, SWF/LF; NPDES; HIST CORTESE; SWCRY; LUST; CA FID UST; ALAMEDA CO. CS; SWEEPS UST; HAZNET; HAULERS	Permitted large volume transfer and process facility of construction/demolition, mixed municipal waste; reported LUST; case closed in 1997
10–11	A-1 Enterprises	3110 Busch Road	RCRA Non-Gen; FINDS; EMI.	Handler of hazardous waste as of 9/11/2012; no spills or leaks reported
12	Kie Con (Kiewit Company)	3200 Busch Road	RCRA-SQG, FINDS; CA FID UST; HIST UST; SWEEPS UST; HAZNET	Small-quantity generator of hazardous wastes; 3 USTs present onsite; listed as a TSD facility; no spills or leaks reported
13	City of Pleasanton	3333 Busch Road	RCRA-SQG; FINDS; HAZNET; TSD	Small-quantity generator of hazardous wastes; no spills or leaks reported
14	City of Pleasanton	3333 Busch Road	UST	UST present onsite; no spills or leaks reported
15	Air Dance Farm	770 El Charro Road	LUST; ALAMEDA CO. CS	LUST case closed in September 2006



**Table 3.7-1 (cont.): Selected Hazardous Materials Sites**

Site Number	Source	Address	Database(s)	Remarks
Notes: CS = Contaminated Sites; EMI = Emission Inventory Data; UST = Underground storage tank RCRA-SQG = Resource Conservation and Recovery Act Small Quantity Generator. Small-quantity generator of hazardous wastes governed by RCRA. LUST = Leaking Underground Fuel Tank Report. Contains records of reported leaking underground storage tank incidents. AST = Aboveground Petroleum Storage Tank Facilities. Registered aboveground storage tanks. HIST UST = Hazardous Substance Storage Container Database. Historical listing of underground storage tank sites. SWEEPS UST = Statewide Environmental Evaluation and Planning System. Lists underground storage tank locations. No longer updated. HIST CORTESE = Hazardous Waste & Substance Site List. Cross-listed with LUST database. HAZNET = Facility and Manifest Data; SWF = Solid Waste Information System NPDES = National Pollutant Discharge Eliminations System; CA FID UST = Facility Inventory Database TSD = Treatment, Storage and Disposal facilities list; RCRA non-gen = Non-generators FINDS = Facility Index System/Facility Registry System Source: Environmental Data Resources, 2012.				

The information in Table 3.7-1 indicates that there are a number of properties within the Specific Plan boundaries that currently use or formerly used reportable quantities of hazardous materials. Of these properties, the ones of most concern are those with reported spills and leaks, specifically, the four sites (Hanson Aggregates, Pleasanton Truck and Equipment, Pleasanton Transfer Station and Recycling Center [Transfer Station], and Air Dance Farm) that contained leaking underground storage tanks (LUSTs). Note that three of the LUST cases are closed and one (the former Hanson Aggregates site) is the subject of ongoing site assessment and closure plans under two Spills, Leaks, Investigation and Cleanup (SLIC) cases. None of the other sites listed in the table have reported spill or leak incidents.

Exhibit 3.7-1 shows the location of hazardous materials sites as listed in Table 3.7-1. The site numbers indicated in Table 3.7-1 correspond with site numbers identified in Exhibit 3.7-1.

**Past and Existing Uses**

Based on aerial photographs, topographical maps, the previous Phase I Environmental Site Assessment, and the EDR record searches as summarized above, FirstCarbon Solutions (FCS) identified past land uses within the Specific Plan boundaries that may be of concern as they relate to hazards and hazardous materials. The land uses are listed below.

- Hanson Aggregates (3-7):** From 1937 until 2001, the Hanson Aggregates site consisted of aggregate quarrying and processing, including asphalt batching operations starting in 1980. The aggregate processing and asphalt batching operations were located in the southern portion of the Specific Plan area, south, and east of the existing Transfer Station. The facilities contained multiple quarry pits, quarrying related equipment and structures, and underground and aboveground storage tanks. Several of the quarry pits were back filled with materials, including but not limited to overburden from the facility; fines from aggregate washing

operations; and adobe, sand, and rubble brought to the facility from various sources. The quarrying and asphalt batching operations ended in November 2001.

Three underground storage tanks (USTs) were removed from the facility in November 1990. One leaking underground storage tank (LUST) case was opened following the removal of these three USTs. A “Case Closure” letter was issued for the three USTs by the RWQCB in March 1998.

In 2003, one 12,000-gallon diesel UST and one 10,000-gallon gasoline UST were removed from the site. A case closure letter was issued for these two USTs in 2007 after soil remediation and testing.

The Hanson Aggregates facility is listed under two SLIC cases. The SLIC program is designed to protect and restore water quality from spills, leaks, and similar discharges. The first case deals with the former asphalt plant located on the southwest corner of the facility. Petroleum hydrocarbons have been detected in soil and groundwater beneath the former asphalt plant. Removal of surface structures and soil removal has been proposed but has not been implemented to date. Conditional approval of a closure plan was provided by the Alameda County Health Care Services Agency on May 15, 2013. As of January 28, 2014, an extension was requested for completion of technical reports regarding the closure plan. Remediation and coordination with Alameda County Health Care Services Agency is ongoing (State Water Resources Control Board 2013).

A soil and groundwater investigation near the former asphalt plant was performed on May 16 and 17, 2007 to assess the vertical and lateral extent of total petroleum hydrocarbons quantified as diesel (TPH-d) and motor oil (TPH-mo) in soil encountered during previous site investigations that were performed during January, February, and March 2007. TPH-d and TPH-mo were detected in the analysis; however, detection may have been attributable to laboratory processing of the sample soils and groundwater that dissolves the TPH compounds bound up in asphalt particulates suspended in the samples (ENV America 2007). Further coordination with regulatory agencies was recommended and there continues to be a concern for affected soils and groundwater near the former asphalt plant.

The second SLIC case deals with the former wash rack and clarifier located in the southwestern portion of the Hanson site. A work plan for the removal of these features and related contaminated soils has been submitted to the Alameda County Health Care Services Agency (State Water Resources Control Board 2013). Remediation has been completed and final paperwork processing is underway with Alameda County Health Care Services.

Subsurface soil adjacent to the west of the former asphalt plant, on the Kiewit property has been impacted by petroleum hydrocarbons, primarily diesel fuel. Visibly stained soil was removed in 2004 but the regulatory status of the case is unresolved. Steel mill furnace slag, which may contain heavy metals were observed in the southeastern portion of the site. Three septic systems and one well are reported within the southern portion of the Hanson Aggregate site associated with the still existing buildings. The septic systems and wells were properly removed or demolished in accordance with the Alameda County Environmental Health Department requirements.



Source: ESRI Aerial Imagery. City of Pleasanton.



## Exhibit 3.7-1 Existing Hazardous Materials Constraints

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In summary, the Hanson Aggregates site may still contains hazardous materials that may be remediated prior to site development.

- **Transfer Station (9):** The Transfer Station facility is located at 3110 Busch Road, and abuts the Hanson Aggregates facility to the east. The facility is listed as an active, permitted large-volume industrial transfer/processing facility. The facility is reported to accept construction waste, demolition waste, and mixed municipal waste. A leaking underground storage tank containing diesel fuel was reported in 1989. Remediation was completed and the LUST case was closed in 1997. This site is not considered to present a significant concern because remediation of the LUST has been completed.
- Petroleum hydrocarbon impacts have been identified in the water and soils from the water retention basin on the north side of Busch Road, adjacent to the east of the City of Pleasanton Operations Service Center, which purportedly received runoff from the Transfer Station (Brown and Caldwell 2007). However, remediation efforts were completed and the retention basin (Busch Pit) has been filled. As such, this site does not appear to present a significant concern.
- **Kiewit Company (Kie Con) (12):** The Kiewit Company was a construction storage facility located west of the Pleasanton Transfer Station and Recycling Center. It is currently leased for truck parking and storage. As indicated in Table 3.7-1, the site contained a LUST; however, the case is closed. This site is not considered to present a significant concern, due to completed remediation of the LUST. As previously indicated, subsurface soils on the Kiewit Company property have been impacted by petroleum hydrocarbons, potentially related to the former Hanson Aggregates asphalt plant to the east. Such soils would need to be appropriately remediated prior to development.
- **City of Pleasanton Operations Service Center (13 and 14):** The Operations Service Center (OSC) is located at 3333 Busch Road and employs approximately 100 workers who are responsible for maintaining the City's infrastructure. The OSC is listed on the Federal Resource Conservation and Recovery Act (RCRA) generators list as a small-quantity generator of hazardous waste. Small quantity generators generate between 100 kilograms and 1,000 kilograms of hazardous waste per month. No spills or leaks have been reported for the OSC and it does not present a significant concern.

## Nearby Uses

The Cal Mat/Vulcan aggregate pits and gravel processing facilities are located east of the Specific Plan boundaries. In November 2005 a LUST was reported at the Vulcan aggregate pits, and a closure/no further action letter was completed in May 2007. Storm-related surface runoff from the Vulcan property flows onto the southeastern corner of the Plan Area and, because of documented evidence of previously recognized environmental conditions on the Vulcan site, there is a potential for affected soils on the southeastern corner of the Plan Area.

The Utility Vault Co., Inc., located at 3786 Valley Avenue (west-southwest of the Plan Area), is listed on the Waste Discharge System as a site that has been issued waste discharge requirements. The

Utility Vault Co., Inc. facility is active with continuous or seasonal discharge that is under Waste Discharge Requirements (State Water Resources Control Board 2013).

Because of their case closed status or active permits, these facilities do not present a significant concern.

There are three additional facilities southwest of the Plan Area that are listed as having LUSTs; however, these cases have all been closed since at least 1998.

## **Livermore Airport**

### ***Land Use Compatibility Plan***

The Livermore Municipal Airport is a city-owned general aviation facility that serves public, private, business, and corporate tenants and customers, including limited private jets. The facility occupies over 640 acres of land and contains two parallel runways: a 5,255-foot lighted main runway and a 2,700-foot unlighted training runway (City of Pleasanton 2012b).

The Airport has approximately 650 based aircraft and can accommodate over 200,000 annual aircraft operations. The airfield is accessible 24 hours a day and the air traffic control tower is operated daily by Federal Aviation Administration staff from 7:00 a.m. to 9:00 p.m. (City of Pleasanton 2012).

The State Aeronautics Act requires the preparation and implementation of Airport Land Use Compatibility Plans (ALUCP) for nearly all public airports in the State. ALUCPs are intended to ensure that incompatible development does not occur on land surrounding airports. To accomplish this, the Act established Airport Land Use Commissions in counties having public use airports. The commissions are charged with developing, updating and implementing ALUCPs (City of Pleasanton 2012b).

The Alameda County Airport Land Use Commission (ALUC) was created in 1971 and adopted the Alameda County ALUCP in 1977. The most recent update ALUCP for the Livermore Airport was completed in August 2012.

### ***Airport Influence Area***

The Airport Influence Area (AIA) is the area in which current and future airport-related noise, over-flight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses, as well as outlying lands on which uses could negatively affect the Airport. The ALUC is authorized to review local land use actions affecting land within the Airport Influence Area, including general plan amendments, specific plans, zoning, and building regulations. An ALUC's decision regarding a local land use proposal is required to be implemented unless (1) the City Council makes special findings in accordance with State law; and (2) the City Council makes a two-thirds majority vote in support of over-riding the ALUC's decision (City of Pleasanton 2012b).

Exhibit 3.9-3 (in Section 3.9, Land Use and Planning) illustrates the location of the existing AIA boundary. The AIA extends west to Santa Rita Road, and south to Stanley Boulevard, encompassing the entire Plan Area (Alameda County 2012).

### **Airport Protection Area**

The City of Livermore established the Airport Protection Area (APA) for the Livermore Airport in 1991. The APA and associated policies were included as an amendment to the ALUCP in 1993 and prohibits new residential land use designations and the intensification of existing residential land use designations within its boundaries. The intent is to forestall adverse impacts on the health, safety, and welfare of future residents that might otherwise live within the APA (City of Pleasanton 2012b).

As shown on Exhibit 3.9-3 (in Section 3.9, Land Use and Planning), the northeastern portion of the Plan Area is located within the APA, including some developable land, a portion of Lake I and Cope Lake, and all of Lake H. The boundaries of the APA are as follows: 5,000 feet north from Runway 7L-25R; 5,000 feet south from Runway 7R-25L; 5,000 feet east from the end of Runway 25R; and 7,100 feet west from the end of Runway 7L (Alameda County 2012).

### **Safety Zones**

The ALUCP safety zones define compatible and incompatible land uses. The safety zones established for Livermore Airport are based on accident data from general aviation airports with similar operational characteristics (runway lengths, classes of aircraft flow, traffic patterns, etc.) to those found at the Livermore Airport (Alameda County 2012).

As shown on Exhibit 3.9-3 (in Section 3.9, Land Use and Planning), three of these zones (Zones 4, 6 and 7) extend into the EPSP Area, while the remainder do not. Provisions relating to Safety Zones 4, 6 and 7 in the Plan Area are summarized below:

- Zone 4 (Outer Approach/Departure Zone) – Prohibits children’s schools, large day care centers, hospitals and nursing homes, indoor assembly with 300 or more people, outdoor assembly with 1,000 or more people, and golf courses. Buildings with more than three floors above ground are generally unacceptable.
- Zone 6 (Traffic Pattern Zone) – Allows residential and non-residential uses. Prohibits indoor and outdoor assembly with 1,000 or more people, children’s schools, and golf courses.
- Zone 7 (Other Airport Environs Outside of Zones 1-6 but within the Airport Influence Area) – Allows residential uses.

The ALUCP discourages uses and landscaping that attract wildlife (such as birds and deer) and hazards to flight such as uses that create glare or plumes (City of Pleasanton 2012b).

### **Fuel Jettison or Dumping**

A portion of the Plan Area is within the airport protection zone described in the Livermore Airport Land Use Plan (Alameda County 2012). Fuel jettison or fuel dumping is a procedure used by aircraft in certain emergencies before a return to the airport shortly after takeoff, or before landing short of its intended destination either to lighten the aircraft’s weight or to reduce risk of fire. According to the Federal Aviation Administration (FAA), fuel dumping occurs about 127 times per year, when planes need to land for emergencies, and cannot because of excess weight. Air Traffic Control guidelines (Air Traffic Control Manual 7110.65L) specify that fuel dumping occurs “at least 2,000 feet

above the highest obstacle within 5 miles of the route or pattern being flown.” Jet fuel evaporates quickly when dispersed in flight. When jet fuel is released at an altitude above 5,000 feet, the fuel is expected to evaporate completely before it reaches the ground (United States Department of Transportation Federal Aviation Administration 2012). While fuel dumping may occur in emergencies, it does not appear to present a significant hazard to the Plan Area.

### **Common Hazardous Materials**

Below are descriptions of common hazardous materials that may be found on developed and industrial sites. The likelihood of encountering these materials is evaluated based on reviewed literature and site reconnaissance observations by FCS.

#### ***Asbestos***

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is commonly used as an acoustic insulator, thermal insulation, fireproofing, and in other building materials. However, asbestos has been banned from many building materials under the Toxic Substances Control Act, the Clean Air Act, and the Consumer Product Safety Act.

Asbestos is made up of microscopic bundles of fibers that may become airborne when asbestos-containing materials are damaged or disturbed. When these fibers get into the air, they may be inhaled into the lungs, where they can cause significant health problems. The California Occupational Health and Safety Administration (CalOSHA) defines asbestos-containing construction materials as any material that contains more than 0.1 percent asbestos by weight.

As the EPSP is built out, existing structures onsite would be scheduled for demolition. This includes demolition related to the relocation of the Transfer Station and demolition of buildings and structures related to the former Hanson Aggregate facility. Therefore, there is a potential for asbestos-containing materials (ACM) to be present. Prior to demolition, an Asbestos Survey would need to be completed pursuant to the U.S. Environmental Protection Agency (EPA), Asbestos Hazard Emergency Reponse Act (AHERA), and National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations.

#### ***Lead***

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably in paint. Lead may cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Primary sources of lead exposure are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil. Both the EPA and the California Department of Health Services define lead paint as containing a minimum of 0.5 percent by weight. Lead-containing waste materials with a concentration greater than 0.1 percent are considered hazardous waste by California law.

There is the potential for lead-based paints (LBP) to be present in buildings constructed prior to 1978. Prior to demolition, a Lead-Based Paint Survey will need to be completed in accordance with the EPA and Occupational Safety and Health Administration (OSHA) guidelines.



Occupational exposure to lead is regulated by both the federal OSHA (29 CFR 1926.62) and the California OSHA (Title 8, General Industry Safety Order (GISO) 5198 and Construction Safety Order (CSO) 1532.1). Based on federal and California OSHA standards, when disturbing paints that contain lead (in any detectable amount), OSHA and CalOSHA regulations must be followed.

### ***Polychlorinated Biphenyls (PCBs)***

Polychlorinated biphenyls (PCBs) are mixtures of synthetic chemicals with similar chemical structures. PCBs can range from oily liquids to waxy solids. Because of their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications, including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and many other applications. More than 1.5 billion pounds of PCBs were manufactured in the United States prior to cessation of production in 1977.

Pacific Gas and Electric Company (PG&E) provides electricity to the Plan Area. As the owner of any transformers present on utility poles, PG&E would be responsible for any inspections, testing, reporting, and release response related to PCBs.

Before the EPA banned the manufacture of PCBs in 1978, PCBs were commonly incorporated in the manufacture of fluorescent light ballasts. Based on the age of the buildings on the project site, there may be fluorescent light ballasts in the existing structures that may have PCB-containing capacitors. Proper disposal of fluorescent light ballasts would be required prior to demolition. Arrangements may be made with various PCB transporters or PCB commercial storers for shipment of ballast, PCB-soiled items, or fluorescent fixtures containing PCBs to an EPA-approved chemical waste processing site. Alternatively, household hazardous waste collection centers can accommodate fluorescent light ballasts containing PCBs.

### ***Mercury***

Mercury is a naturally occurring element that is found in air, water, and soil that has traditionally been used to make products such as fluorescent lamps, switches, and thermometers. Mercury exposure at high levels can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Scientific studies have shown that high levels of mercury in the bloodstream of unborn babies and young children may harm the developing nervous system, making a child less able to think and learn.

As the Base Plan is built out, structures onsite would be scheduled for demolition. Based on the age of the buildings on the project site, there may be mercury-containing fluorescent lights and switches. Therefore, building materials containing mercury may be an environmental concern at the project site. Proper disposal of potential mercury-containing building materials would be required prior to demolition.

### ***Chlorofluorocarbons (CFCs)***

CFCs were developed in the early 1930s and were used in a variety of industrial, commercial, and household applications. These substances are non-toxic, non-flammable, and non-reactive with other chemical compounds. These desirable safety characteristics, along with their stable

thermodynamic properties, make them ideal for many applications—as coolants for commercial and home refrigeration units, aerosol propellants, electronic cleaning solvents, and blowing agents. CFCs contribute to depletion of the ozone layer and, consequently, to skin cancer and cataracts. CFCs also are greenhouse gases and contribute to global climate change. Because of the age of existing structures onsite, CFC-containing equipment may be present onsite and would require proper disposal prior to demolition.

### **Radon**

Radon is a carcinogenic, radioactive gas resulting from the natural breakdown of uranium in soil, rock, and water. Radon gas enters a building through cracks in foundations and walls. Once inside the building, radon decay products may become attached to dust particles and inhaled, or the decayed radioactive particles alone may be inhaled and cause damage to lung tissue. The EPA has established a safe radon exposure threshold of 4 picocuries per liter of air (pCi/l).

According to the EPA Map of Radon Zones, Alameda County is located in Zone 2 of the EPA Radon Zone Map. Zone 2 is designated as a moderate potential radon zone with levels between 2 and 4 pCi/l of air and, therefore, is within the safe radon exposure threshold.

### **High-Voltage Power Lines**

High-voltage power lines emit electromagnetic fields (EMFs), which have been alleged to be a cause of cancer. However, scientific research has never conclusively established a link between EMFs and cancer. High voltage power lines are the most common source of EMFs in urban settings. An existing 60/70-kilovolt overhead power line is located along Stanley Boulevard within the Plan Area.

## **City of Pleasanton Comprehensive Emergency Management Plan**

The City of Pleasanton has an existing Comprehensive Emergency Management Plan (2005), which identifies the appropriate actions to take when an event occurs because of a natural disaster, human-caused emergencies, and technological incidents. The Comprehensive Emergency Management Plan identifies the City’s emergency planning, organizational, and response policies and procedures, while integrating and coordinating these with other governmental levels when required. The Comprehensive Emergency Management Plan institutes the Standardized Emergency Management System, and the National Incident Management System, which provide a common system that is recognized throughout the State of California as a basis for managing large emergency incidents that could involve multiple agencies and jurisdiction.

## **3.7.3 - Regulatory Framework**

### **Federal**

#### **Environmental Protection Agency**

The EPA leads the nation’s environmental science, research, education, and assessment efforts. The EPA’s mission is to protect human health and to safeguard the natural environment, related to air, water, and land. The EPA works closely with other federal agencies, state and local governments, and Indian tribes to develop and enforce regulations under existing environmental laws. The EPA is primarily responsible for researching and setting national standards for a variety of environmental

programs and delegates to states and tribes responsibility for issuing permits, and monitoring and enforcing compliance. When national standards are not met, the EPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality. The EPA also works with industries and all levels of government in a wide variety of voluntary pollution prevention programs and energy conservation efforts.

EPA Region 9 has jurisdiction over Pleasanton and the southwestern United States (Arizona, California, Nevada, and Hawaii). EPA programs related to hazardous materials include the following:

- Community Right-to-Know Information
- Pesticide Management
- Toxic Release Inventory
- Brownfields (CalSites Database)
- Cleanup Technologies
- Compliance Assistance
- Emergency Response
- Hazardous Waste
- Oil Spills

### ***Resource Conservation and Recovery Act***

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

### ***Comprehensive Environmental Response, Compensation, and Liability Act***

Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). The purpose of CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat. The Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

### ***Superfund Amendments and Reauthorization Act***

The Superfund Amendments and Reauthorization Act relates primarily to emergency management of accidental releases. It requires formation of state and local emergency planning committees, which are responsible for collecting material handling and transportation data for use as a basis for planning. Chemical inventory data is made available to the community at large under the “right-to-know” provision of the law. In addition, the Superfund Amendments and Reauthorization Act also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory.

### ***Hazardous Materials Transportation Act***

The Hazardous Materials Transportation Act is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, highways, through air, or in pipelines. It includes provisions for material classification, packaging, marking, labeling, placarding, and shipping documentation.

## State

### ***California State Aeronautics Act***

The State Aeronautics Act, Public Utilities Code (PUC) Section 21001, et seq. is the foundation for the California Department of Transportation’s Division of Aeronautics aviation policies. The Division issues permits for and annually inspects hospital heliports and public-use airports, makes recommendations regarding proposed school sites within 2 miles of an airport runway, and authorizes helicopter-landing sites at/near schools. Aviation system planning provides for the integration of aviation into transportation system planning on a regional, statewide, and national basis. The Division of Aeronautics administers noise regulation and land use planning laws that foster compatible land use around airports and encourages environmental mitigation measures to lessen noise, air pollution, and other impacts caused by aviation. The Division of Aeronautics also provides grants and loans for safety, maintenance, and capital improvement projects at airports.

### ***California Hazardous Waste Control Law***

The Hazardous Waste Control Law is the primary hazardous waste statute in the State of California. The Hazardous Waste Control Law implements RCRA as a “cradle-to-grave” waste management system in the State of California. The law specifies that generators have the primary duty to determine whether their waste is hazardous and to ensure their proper management. The Hazardous Waste Control Law also establishes criteria for the reuse and recycling of hazardous waste used or reused as raw materials. The law exceeds federal requirements by mandating source reduction planning, and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of waste and waste management activities that are not covered by federal law with RCRA.

## Local

### ***Bay Area Air Quality Management District***

The Bay Area Air Quality Management District (BAAQMD) has jurisdiction over the City of Pleasanton and deals with pollutants, including hazardous air pollutants such as asbestos. Information on the BAAQMD and air quality is provided in Section 3.3, Air Quality of this EIR.

## Alameda County

### ***Livermore Airport Land Use Compatibility Plan***

The State Aeronautics Act requires the preparation and implementation of Airport Land Use Compatibility Plans (ALUCP) for nearly all public airports in the State. ALUCPs are intended to ensure that incompatible development does not occur on land surrounding airports. To accomplish this, the Act established Airport Land Use Commissions in counties having public use airports. The commissions are charged with developing, updating and implementing ALUCPs (City of Pleasanton 2012b).

The Alameda County Airport Land Use Commission (ALUC) was created in 1971 and adopted the Alameda County ALUCP in 1977. The most recent update ALUCP for the Livermore Airport was completed in August 2012.

### **Alameda County Department of Environmental Health Certified Unified Program Agency**

The Alameda County Department of Environmental Health Certified Unified Program Agency (CUPA) is the administrative agency that coordinates and enforces numerous local, state, and federal hazardous materials management and environmental protection programs in the County. The programs include Hazardous Materials Business Plan Program, Hazardous Waste Generator Program, Underground Storage Tank Program, California Accidental Release Program, and Tiered Permitting Program. The Alameda County Department of Environmental Health CUPA is also responsible for the survey and inspection of waste tire facilities using a grant from the CalRecycle.

The Livermore-Pleasanton Fire Department is authorized by the California Environmental Protection Agency to be the CUPA for the City of Pleasanton. As the CUPA, the Fire Department is the local agency responsible for administering the six elements of the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program).

### **City of Pleasanton**

#### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs that are relevant to hazards and hazardous materials:

- **Goal 5:** Minimize the risks to lives and property due to potential exposure to hazardous materials
  - **Policy 16:** Regulate the transportation, delivery, use, and storage of hazardous materials within the city limits.
    - **Program 16.1:** Enforce the provisions of the City’s Hazardous Materials Storage Permit Ordinance.
    - **Program 16.2:** Require scheduled on-site monitoring of all sewer outfalls for sites permitted to store hazardous materials.
    - **Program 16.4:** Promote the safe transportation of hazardous materials through Pleasanton by: 1) prohibiting the parking of vehicles transporting hazardous materials on city streets; and 2) requiring that new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the greatest extent possible.
    - **Program 16.5:** Require emergency response plans for all large generators of hazardous waste or users of hazardous materials to be submitted as part of land use applications.
  - **Policy 17:** Ensure that hazardous materials are not released as a result of construction activities and that any existing hazardous materials and potential contamination are remediated prior to development.
    - **Program 17.1:** When reviewing applications for new development in areas historically used for commercial or industrial uses, the City shall require environmental investigation as necessary to ensure that soils, groundwater, and buildings affected by hazardous material releases from prior land uses, and lead and asbestos potentially present in building materials, would not have the potential to affect the environment or the health and safety of future property owners or users.

- **Program 17.2:** For projects involving grading, excavation or trenching, ensure that construction drawings and construction sites clearly show underground utilities and pipelines.
- **Policy 18:** Continue to encourage the reduction of solid and hazardous wastes generated within the city, in accordance with countywide plans.
- **Policy 19:** Ensure convenient access for Pleasanton residents for the disposal of household hazardous wastes.

### 3.7.4 - Methodology

FCS evaluated potential impacts from hazards and hazardous materials through review of the City of Pleasanton General Plan 2025, a Phase I Environmental Site Assessment, a Soil and Groundwater Investigation Report, and a database search performed by Environmental Data Resources, Inc., included in this EIR as Appendix E.

### Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hazards, and hazardous materials impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working the project area.
- 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. (Refer to Section 7, Effects Found not to be Significant.)
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- 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. (Refer to Section 7, Effects Found not to be Significant.)

### 3.7.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Routine Use/Risk of Upset

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**Impact HAZ-1:**      **Development and land use activities contemplated by the Specific Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

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#### *Impact Analysis*

This analysis addresses threshold questions a) and b).

The Plan Area contains several reported users of hazardous materials. Generally, users handle, store, and dispose of hazardous materials in accordance with federal and state regulations such that public safety is not exposed to undue risk.

#### *Short-term Impacts*

Projects constructed as a result of the Specific Plan may involve the routine use and transport of hazardous materials including fuel, oils, mechanical fluids, and other chemicals used during construction and demolition activities. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. No significant impacts would occur during construction or demolition activities.

Impacts related to the demolition of existing buildings that may contain hazardous materials such as asbestos are discussed below in Impact HAZ-3.

#### *Long-term Impacts*

##### **Hazardous Materials**

The proposed land uses envisioned by the Specific Plan would not be large-quantity generators or users of hazardous materials with the exception of the existing Pleasanton Transfer Station and Recycling Center and the OSC, which would continue their current operations and regulated use or generation of hazardous materials. Small quantities of hazardous materials would likely be used within the EPSP Area by individual businesses and residents, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (such as many household cleaners), disinfectants, and fertilizers. The use of such substances would comply with applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are primarily limited to the immediate vicinity of the materials. Transport of these materials would be performed by commercial vendors who would be required to comply with federal and state laws regarding hazardous materials and transportation. As such, they are not expected to expose human health or the environment to undue risks associated with their use.

Specific businesses that would be developed are unknown at the time of this writing. However, businesses that store or intend to store 55 gallons of hazardous materials as liquid, 500 pounds of hazardous materials as solids, or 200 cubic feet of hazardous materials as gas onsite within the Plan Area would be required to submit a Hazardous Materials Business Plan to Alameda County and obtain approval. Furthermore, compliance with the CUPA program would be a part of the building permit and fire clearance review for proposed uses within the Plan Area boundaries. Likewise, the existing Pleasanton Transfer Station and Recycling Center and the OSC would be required to continue operating in accordance with applicable hazardous material regulations, including their Hazardous Material Business Plans. As such, proposed land uses and existing land uses within the EPSP Area would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and impacts would be less than significant.

#### **Electromagnetic Fields**

An existing 60/70-kilovolt overhead power line is located within the Plan Area along Stanley Boulevard. The line is located within an existing easement, and the Specific Plan does not propose any new development within the easement. Electromagnetic fields have been alleged to cause risk to human health. The California Public Utility Commission does not consider EMFs a health risk because no consensus exists among scientists that EMFs create a potential health risk. Therefore, it is reasonable to conclude that EMFs on the site would not create a significant hazard to the public or environment. Impacts would be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant impact.

#### **Mitigation Measures**

No mitigation is necessary.

#### **Level of Significance After Mitigation**

Less than significant impact.

#### **Exposure of Schools to Hazardous Materials**

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**Impact HAZ-2:**            **Development and land use activities contemplated by the Specific Plan would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.**

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#### **Impact Analysis**

This analysis addresses threshold question c).

Existing schools within 0.25 mile of the Specific Plan boundaries include Montessori School of Pleasanton (3410 Cornerstone Court) and Mohr Elementary School (3300 Dennis Drive). The Specific Plan also includes a potential school site along the south side of Lake I.

Proposed land uses within the Specific Plan boundaries within 0.25 mile of Mohr Elementary School consist of Zone 7 Open Space and Lake I and do not include urban development. Maintenance of the Zone 7 Open Space is ongoing and would continue with implementation of the project in a similar



fashion. As such implementation of the Specific Plan would not include the emission or handling of substantial amounts of hazardous wastes within 0.25 mile of Mohr Elementary School.

Montessori School of Pleasanton is located to the west of the Plan Area. Proposed uses within 0.25 mile of Montessori School of Pleasanton include residential uses of varying density, intermixed with parks and open space. These uses may routinely use cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and basis (such as many household cleaners), disinfectants, and fertilizers. These uses would be limited in quantity and would be required to be handled, stored, and disposed of in accordance with local, state, and federal regulations. Furthermore, such uses are similar to the existing residential areas that are adjacent to Montessori School of Pleasanton. The City of Pleasanton Operations Service Center is also located within 0.25 mile of this school facility; however, operation of this facility is not expected to change.

A potential school site is included south of Lake I. The school would be within 0.25 mile of proposed Residential, Campus Office, Open Space, Parks, Lake I and Retail land uses. These uses may routinely use cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and basis (such as many household cleaners), disinfectants, and fertilizers. These uses would be limited in quantity and would be required to be handled, stored, and disposed of in accordance with local, state, and federal regulations.

In summary, proposed land uses and development within 0.25 mile of an existing or proposed school would not emit or handle substantial amounts of hazardous materials or waste. As such, impacts would be less than significant.

***Level of Significance Before Mitigation***

Less than significant impact.

***Mitigation Measures***

No mitigation is necessary.

***Level of Significance After Mitigation***

Less than significant impact.

**Past or Present Site Usage**

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**Impact HAZ-3:      Development and land use activities contemplated by the Specific Plan may be exposed to undue risk as a result of prior contamination from past or present uses.**

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***Impact Analysis***

This analysis addresses threshold question d).

As described in the Environmental Setting, a number of land uses within the Plan Area currently use or formerly used hazardous materials. Implementation of the Specific Plan may expose future residents to existing contamination.

### *Government Code Section 65962.5*

Environmental Data Resources (EDR) conducted record searches of lists compiled pursuant to Government Code 65962.5 that yielded 34 records for properties within the Specific Plan boundaries (summarized in Table 3.7-1). As previously discussed, three sites contained leaking underground storage tanks (LUSTs). The three LUST cases are closed and, as such, would not create a significant hazard to the public or environment. The former Hanson Aggregate facility is the subject of ongoing site assessment and remediation in accordance with two SLIC cases under the authority of the RWQCB. The two existing SLIC cases have ongoing remediation and work plans established with the Alameda County Health Services Agency and are discussed further below.

### *Past Uses*

The former Hanson Aggregate facility is undergoing continued site closure and remediation activities for both the former onsite asphalt plant and truck wash rack and clarifier SLIC sites. Work plans for both sites have been submitted to the Alameda County Health Services Agency. Remediation of these contaminated sites is independent of the proposed Specific Plan and would continue to occur whether the plan is adopted or not. Future redevelopment of the impacted areas is dependent upon proper remediation. Therefore, there is certainty that the Base Plan would not interfere with remediation of these sites and would not expose future residents to contaminated soil or groundwater.

Additional areas of potential environmental concerns include storage of steel mill furnace slag in the southeastern portion of the Plan Area and potentially affected soils related to stormwater runoff from the Vulcan property. Subsurface soil on the Kiewit property has been impacted by petroleum hydrocarbons, potentially related to former asphalt plant to the east. While a Phase I Environmental Site Assessment was prepared in 2006 for approximately 332 acres within the Plan Area (included in Appendix E), subsequent, site-specific Phase I Environmental Site Assessments would identify potential hazard concerns and provide direction on required remediation. As such, Mitigation Measure HAZ-3a is proposed that would require a site-specific Phase I Environmental Site Assessment to be conducted, and implementation of any recommended remediation measures to ensure any contamination would not pose a risk to future development and land uses within this area.

### *Current Uses*

The Transfer Station, located at 3110 Busch Road is listed as an active, permitted large-volume industrial transfer/processing facility. The facility is reported to accept construction, demolition, and mixed municipal waste. The LUST at this site was removed in 1997 and a closure letter was issued, indicating that no further action is required. Development would occur adjacent to the Transfer Station; however, it operates within its existing permits and in compliance with applicable hazardous material handling and disposal regulations and therefore would not represent a potential hazard to future adjacent development.

Petroleum hydrocarbon impacts have been identified in the water and soils from the water retention basin on the north side of Busch Road, adjacent to the City of Pleasanton Operations Service Center, which purportedly received runoff from the Transfer Station (Brown and Caldwell 2007).

Implementation of Mitigation Measure HAZ-3a would require further investigation and implementation of any recommended remediation measures to ensure any contamination would not pose a risk to future development and land uses within this area.

#### *Other Hazardous Conditions*

A number of structures within the Plan Area boundaries pre-date the federal bans on asbestos-containing building materials and lead-based paint, which were instituted in the late 1970s, and may also contain other hazardous materials such as PCBs, CFCs, and mercury. As such, demolition of structures that were constructed prior to this time period has the potential to result in exposure to these materials, potentially creating a health risk to future construction workers and nearby members of the general public. Prior to demolition, an Asbestos Survey would need to be completed pursuant to EPA AHERA and NESHAP regulations. A Lead-Based Paint Survey would also need to be completed in accordance with the EPA and OSHA guidelines. As such, Mitigation Measure HAZ-3b requires structures constructed prior to 1978 to be evaluated for the potential presence of these hazardous materials, and if present, requires proper removal and disposal in accordance with federal and state regulations.

#### **Level of Significance Before Mitigation**

Potentially significant impact.

#### **Mitigation Measures**

**MM HAZ-3a** Prior to the approval of each project within the Specific Plan boundaries, the project applicant shall prepare and submit to the City of Pleasanton a site-specific Phase I Environmental Site Assessment to assess the presence of hazards or hazardous materials. Recommendations from the site assessment shall be incorporated into development plans and implemented to the satisfaction of the City of Pleasanton to ensure future land users are not adversely affected by any identified onsite hazards.

**MM HAZ-3b** Prior to demolition of any structure located within the Plan Area, the project applicant shall retain a certified hazardous waste contractor to determine the presence or absence of building materials or equipment that contain hazardous waste, including asbestos, lead-based paint, mercury, PCBs and CFCs. If such substances are found to be present, the contractor shall properly remove and dispose of these hazardous materials in accordance with federal and state law. All removal activities shall be completed prior to commencement of demolition activities. The property owner or applicant shall submit documentation to the City of Pleasanton demonstrating that this contractor has been retained as part of the demolition permit application. Upon completion of removal and disposal, the project applicant shall provide documentation to the City of Pleasanton demonstrating that these activities were successfully completed.

#### **Level of Significance After Mitigation**

Less than significant impact.

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## Airport Land Use Plan

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**Impact HAZ-4: Development and land use activities contemplated by the Specific Plan would not result in an aviation safety hazard for people residing or working within the Specific Plan Area.**

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### ***Impact Analysis***

This analysis addresses threshold question e).

The entirety of the Plan Area is located within the Airport Influence Area (AIA) of the Livermore Municipal Airport, specified by the Livermore Municipal Airport Master Plan. The AIA is the area within which the ALUC is authorized to review local land use actions. The AIA also coincides with the Height Referral Area, which delineates the airspace of concern to the ALUC, due to possible hazards to air navigation caused by tall structures.

The Airport Protection Area (APA) is a boundary within the AIA that was established to prevent the encroachment of incompatible land uses near the vicinity of the Airport. The APA prohibits new residential land use designations and the intensification of existing residential land use designations within its boundaries. The northeastern portion of the Plan Area, including the proposed Campus Office and Retail Overlay land use areas, the Destination Use land use area, and the potential Public School/Park site, is located within the APA, along with a portion of Lake I and Cope Lake, and all of Lake H. No residential land uses are proposed for this area, in compliance with the APA.

The ALUCP further provides Safety Zones that specify permissible, conditional, and prohibited land uses within the APA. The Specific Plan area falls within Safety Zones 4, 6 and 7, with construction occurring in each of those zones (Exhibit 3.9-3 in Section 3.9, Land Use and Planning). As indicated in the Environmental Setting, Safety Zones 4, 6, and 7 have specific regulations for the types and densities of land uses. The ALUCP also discourages land uses and landscaping that attract wildlife (such as birds and deer) and hazards to flight such as uses that create glare or plumes. The existing lakes within the Plan Area attract wildlife, especially waterfowl, which may conflict with airport operation. Under the Specific Plan, the existing lakes would be maintained, so that any existing considerations with respect to wildlife would continue. However, the Base Plan would not be expected to contribute to or exacerbate this condition. To ensure consistency with the ALUCP, the Specific Plan requires the following:

- Prior to City approval of PUD development plans for projects within the EPSP boundaries, plans shall be submitted to the Alameda County Airport Land Use Commission for review to ensure consistency with the Livermore Municipal Airport's Land Use Compatibility Plan.

With the implementation of this Specific Plan policy, impacts related to aviation safety hazards would be less than significant.

### ***Level of Significance Before Mitigation***

Less than significant impact.

### **Mitigation Measures**

No mitigation is necessary.

### **Level of Significance After Mitigation**

Less than significant impact.

### **Emergency Response/Evacuation Plan**

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**Impact HAZ-5: Development and land use activities contemplated by the Specific Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

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### **Impact Analysis**

This analysis addresses threshold question g).

The City of Pleasanton maintains a Comprehensive Emergency Management Plan that outlines local, regional, and state response systems and protocol. The Comprehensive Emergency Management Plan does not outline specific emergency access roads, but it can be assumed that major roadways within the City of Pleasanton such as Valley Avenue and Stanley Boulevard would be used in an emergency. While development of the Specific Plan would include offsite infrastructure improvements on both Valley Avenue and Stanley Boulevard, such modifications would not affect their use for emergency access or evacuation.

The Specific Plan would provide adequate emergency vehicular access throughout the Plan Area via driveways, roadways and an internal circulation network. All driveways and internal roadways would be designed to accommodate large emergency vehicles such as fire engines. These improvements would contribute to effective emergency response and evacuation, and would promote efficient circulation in the project vicinity. Furthermore, the Specific Plan does not propose any permanent road closures, lane reductions, or other adverse circulation conditions that may adversely affect emergency response or evacuation in the project vicinity. As such, impacts would be less than significant.

### **Level of Significance Before Mitigation**

Less than significant impact.

### **Mitigation Measures**

No mitigation is necessary.

### **Level of Significance After Mitigation**

Less than significant impact.

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## 3.8 - Hydrology and Water Quality

### 3.8.1 - Introduction

This section describes the existing hydrology and water quality setting of the Specific Plan area and its surroundings. Descriptions and analysis in this section are based on the City of Pleasanton General Plan 2005-2025 and information provided by the California Department of Water Resources.

### 3.8.2 - Environmental Setting

#### Climate

The regional climate is considered a Mediterranean climate with wet winters and relatively dry summers. Normal mean annual precipitation is about 14.82 inches per year with about 88 percent of the annual precipitation occurring from November through April. Mean annual precipitation from 2000 through 2006 was about 14.49 inches per year with about 95 percent occurring from November through April. Mean annual normal temperature is about 59.8°F and mean monthly temperature ranges from 47°F in December to 72°F in July. Mean annual temperature from 2000 through 2006 was 61.2°F and mean monthly temperature ranges from 48.4°F in January to 74.3°F in July (Pleasanton General Plan 2005-2025 DEIR, 3.6-1).

Table 3.8-1 summarizes local meteorology, as measured at Livermore Municipal Airport and reported by the Western Regional Climate Center.

**Table 3.8-1: Meteorological Summary**

Month	Temperature (°F)		Precipitation (inches)
	Average Minimum	Average Maximum	
January	36.7	56.7	2.99
February	39.4	61.2	2.48
March	41.3	65.2	2.15
April	43.6	70.4	0.99
May	47.6	76.3	0.44
June	51.6	83.1	0.11
July	54.2	89.0	0.02
August	54.0	88.2	0.04
September	52.5	85.9	0.22
October	47.7	77.7	0.67
November	41.1	66.4	1.55
December	37.0	57.5	2.58
Annual Average	45.6	73.1	14.24

Notes:  
 Measurements taken at Livermore Municipal Airport, the nearest weather station to the Plan Area.  
 Period of Record: January 1, 1903 through October 31, 2011.  
 Source: Western Regional Climate Center, 2012.

## Watershed

Pleasanton, including the EPSP Area, lies within the Alameda Creek watershed, a drainage basin encompassing about 675 square miles between Mount Hamilton and Mount Diablo. Each stream, tributary, and reservoir within this area has its own smaller watershed that ultimately feeds into Alameda Creek. Alameda Creek flows northwest from its origin on Mount Hamilton until it meets the Arroyo de la Laguna near Sunol and then runs west through Niles Canyon to San Francisco Bay. The Arroyo de la Laguna collects the surface water runoff from the Tri-Valley and carries it south to Alameda Creek (City of Pleasanton 2009).

Other surface water resources located in the vicinity of the EPSP Area include the Chain of Lakes, Arroyo las Positas, Tassajara Creek, Arroyo del Valle, and Arroyo Mocho. Surface water features are described below.

### **Regional Surface Water**

The following information appears in the Pleasanton General Plan EIR:

- **Arroyo las Positas.** The Arroyo las Positas is a major drainage feature of the Livermore Valley and drains approximately 51,000 acres. Summer flows are a combination of irrigation, urban flows, and agricultural runoff, all of which keep the Arroyo las Positas as a perennial creek. The Arroyo las Positas begins in the Altamont Hills east of Livermore and flows westward to its confluence with the Arroyo Mocho at the northeastern edge of the EPSP Area.
- **Tassajara Creek.** Tassajara Creek flows from north to southwest, through the City of Dublin, crossing under Interstate 580 (I-580) into the City of Pleasanton at Old Santa Rita Road. After continuing under I-580, the creek flows for approximately one mile south before reaching its confluence with the Arroyo Mocho. South of I-580 Tassajara Creek flows are maintained by shallow groundwater aquifer seepage into the stream channel. The stream banks are incised (i.e., cut down) 15 to 20 feet with an active channel width of about 15 feet.
- **Arroyo Mocho.** The Arroyo Mocho flows in an east to west and northwest direction through the Chain of Lakes area, then turns in a southwesterly direction west of El Charro Road to its confluence with the Alamo Canal near I-680. The channel is trapezoidal in shape, with levees along its upper length within the watershed. The creek bed between Alamo Canal and Santa Rita Road has been actively incised to an average bottom width of 20 feet with side slopes of 3:1 to 4:1. The Arroyo Mocho drains approximately 36,000 acres (56.2 square miles) of mixed agriculture, urban, and undeveloped lands starting in Santa Clara County, where it flows generally to the northwest. Because of the regional Mediterranean climate, flow within the Arroyo Mocho is variable; summer flows are low and often depend upon releases from Zone 7 storage facilities for groundwater recharge to the Chain of Lakes system. This arroyo may run dry during the summer.
- **Alamo Canal.** Alamo Canal is a trapezoidal flood control channel that carries flows from South San Ramon Creek and Alamo Creek (north of Pleasanton in the cities of San Ramon and Dublin) into the Arroyo de la Laguna. This canal runs for approximately 3 miles from the I-680/I-580 interchange, parallel to I-680.



- **Arroyo del Valle.** The Arroyo del Valle is an unchannelized stream that originates at the Del Valle Reservoir and flows west through unincorporated Alameda County, Shadow Cliffs Regional Recreation Area, and continues to meander through the City of Pleasanton to its confluence with the Arroyo de la Laguna and Alamo Canal. A distinctive riparian corridor is present on both sides of the stream channel.
- **Chain of Lakes.** The Chain of Lakes is a series of former gravel pits that are currently being improved for stormwater retention/flood control and groundwater recharge. Water from the Arroyo Mocho is released periodically into the Chain of Lakes area. The Arroyo Mocho flows through the Tri-Valley and near the Chain of Lakes, but is separated from it by levees. Surface water does not flow out of the Chain of Lakes area; thus, the area is not considered part of the Arroyo Mocho Watershed.

## Water Quality

Both Zone 7 and the City of Pleasanton operate extensive water quality monitoring programs that the agencies have continually updated and refined over the last decade. Neither agency has detected any significant levels of volatile organic compounds or contaminants in the water supply. In addition, Pleasanton's water quality complies with all federal and State drinking water-quality standards (City of Pleasanton 2009).

Within the Plan Area, the San Francisco Bay Regional Water Quality Control Board has characterized the Arroyo de la Laguna, Arroyo las Positas, Arroyo del Valle, Arroyo Mocho, and Alameda Creek as impaired by diazinon. Diazinon is a pesticide used on a variety of agricultural crops and formerly used on residential gardens and lawns. As of December 31, 2004, the EPA no longer permits its sale for nonagricultural uses. Because of the ban, the diazinon levels in the creeks entering the Bay have diminished (City of Pleasanton 2009).

The Lower San Francisco Bay is listed as impaired by chlordane, DDT, dieldrin, and mercury from nonpoint sources; by dioxin compounds, furan compounds, and mercury from atmospheric deposition; by exotic species from ballast water; and by PCBs and dioxin-like PCBs from unknown nonpoint sources. Industrial and municipal point sources, resource extraction, and natural sources contribute to mercury degradation of the Lower San Francisco Bay.

The Zone 7 Surface Water Monitoring Program measured water quality within the Arroyo Mocho in June 2005. Table 3.8-1 of the General Plan EIR lists concentrations of various constituents at monitoring sites in the Plan Area from testing dates in 2005, as well as the applicable water quality criteria/regulations for surface water resources. Although water quality criteria are long-term thresholds rather than single measurement criteria, this information serves as an indicator of possible impairments. Constituents exceeding regulatory thresholds on the sampling dates included total dissolved solids, chloride, and nitrates (Pleasanton General Plan 2005-2025 DEIR, 3.6-5).

The Dublin-San Ramon Services District (DSRSD) treats and monitors the City's sewage effluent by contract. The sewage treatment plant produces secondary effluent, which is pumped to the San Francisco Bay; tertiary effluent, which is used primarily for landscape watering in commercial areas in Dublin; and sludge, which is decomposed and then buried nearby in the drying beds north of

Stoneridge Drive. The District monitors secondary effluent on a daily basis and monitors the sewage transport system for pH levels (a measure of acidity or alkalinity) and hydrogen sulfide. At its sewage ponds site, the District operates numerous test wells that have shown no toxic material intrusion on the soil content (City of Pleasanton 2009).

### **Local Drainage**

Existing surface water drainage within the EPSP Area consists generally of sheet flows and open drainages to previously mined areas and the onsite lakes.

### **Groundwater**

#### ***Groundwater Basin***

The Plan Area is located above the Livermore Valley Groundwater Basin (ID 2-10). The general groundwater gradient is to the west, then south towards the Arroyo de la Laguna. Elevations within the basin range from about 600 feet above mean sea level in the east, near the Altamont Hills, to about 280 feet above mean sea level in the southwest, where the Arroyo de la Laguna flows into the Sunol Groundwater Basin area. The basin surface area is approximately 69,600 acres (108.8 square miles) and extends from the Altamont Hills and Greenville fault to the east to the Pleasanton and Main Ridges as well as the Calaveras fault on the west, and from the Orinda Upland south to the Livermore Upland. The two major faults, the San Andreas and Hayward Faults prevent lateral groundwater movement. The basin storage capacity is estimated at 500,000 acre-feet and the amount in storage during 1999 was estimated at 219,000 acre-feet (Pleasanton General Plan 2005-2025 DEIR, 3.6-6).

This groundwater basin is divided into two major basins, based on geophysical properties: the Main Basin and Fringe Basin. These sources of groundwater co-mingle in the Bernal and Amador sub-basin, and generally flow towards municipal or gravel mining company groundwater pumping wells. The southeastern region of the Livermore Valley is the most important groundwater recharge area and consists of mainly sand and gravel that was deposited by the ancestral Tulare Lake and current Arroyo del Valle and Arroyo Mocho (DEIR, 3.6-7).

Although all creeks feeding the Arroyo de la Laguna are naturally seasonal, Zone 7 of the Alameda County Flood Control and Water Conservation District releases both stored water from the Del Valle Reservoir and imported water from the South Bay Aqueduct into these creeks. These controlled water releases recharge the local groundwater basin underlying the Plan Area (Pleasanton General Plan 2005-2025).

The groundwater basin includes several aquifers consisting of water-bearing gravel layers separated by impervious clay layers. Directly under flat portions of the City of Pleasanton planning area sits the greatest amount of usable groundwater in the main water basin (Pleasanton General Plan 2005-2025).

#### ***Groundwater Depth***

The depth to groundwater within the City of Pleasanton planning area ranges between approximately 22 and 67 feet below ground surface, depending upon the groundwater subbasin (Pleasanton General Plan 2005-2025 DEIR, 3.6-9).

### **Groundwater Quality**

The Main Basin is characterized by relatively good quality groundwater that meets all state and federal drinking water standards with only minimal treatment (chlorination to preserve quality in the distribution system). In general, the quality of water in the central portion of the Main Basin varies from fair to excellent. A number of wells are located within this area because of this potable quality water. The total dissolved solids content in the central portion of the Main Basin averages about 400 to 700 milligrams per liter. The Main Basin supports large-capacity municipal production wells and is also used to store and distribute high-quality imported water through Zone 7's recharge program. The groundwater in the Fringe Sub-basins tends to be saltier than the Main Basin. Zone 7 has developed a salt management plan to identify and evaluate all significant salt loading to, and removal from, the groundwater basin. The Zone 7 monitoring indicates that groundwater used for potable water supplies meets regulatory goals for drinking water including arsenic, total chromium VI, chloride, total dissolved solids, hardness, chloramines, free ammonia, total trihalomethanes, and five haloacetic acids (Pleasanton General Plan 2005-2025 DEIR, 3.6-9).

Zone 7 has identified recharge of local streamflow and imported water, subsurface inflow, and irrigation returns as major contributors to increasing total dissolved solids (TDS) concentration. TDS in the local surface water varies significantly throughout the watershed from approximately 350 milligrams per liter (mg/l) TDS to more than 1,000 mg/l. The highest-quality surface water recharging the basin occurs through the Arroyo Mocho and Arroyo del Valle where the TDS is generally less than 500 mg/l. The poorest quality surface water recharging the basin has a TDS of approximately 1,000 mg/l and occurs in the Arroyo las Positas. Localized elevated groundwater nitrate levels are associated with livestock operations and septic tank usage in the central and eastern portions of the Livermore Valley (Pleasanton General Plan 2005-2025 DEIR, 3.6-9).

### **Water Supply**

The City purchases approximately 80 percent of its water from Zone 7 Water Agency, and obtains the remaining approximately 20 percent from three groundwater wells that are owned and operated by the City (WJM C&E 2014). Zone 7's water supply reliability has decreased in recent years, due to changes in operation of state and federal water projects that limit pumping in the San Joaquin Delta. The change in operations has lowered the State's ability to meet its contractual demands, and by extension, has limited Zone 7's ability to serve increased water demands. Both Zone 7 and the City assume little to no growth in potable water demands from the City of Pleasanton over the next 20 years (WJM C&E 2014).

The City's 2010 Urban Water Management Plan (UWMP) evaluated the City's 2009 General Plan, and included evaluation of the Plan Area. Despite the operational constraints described above, both the City of Pleasanton and the Zone 7 UWMPs indicate that current supplies will be sufficient beyond 2014 with the implementation of conservation measures and the planned expansion of recycled water infrastructure and use (WJM C&E 2014).

Conservation program improvements are being funded and implemented through water supply assessments. In addition, the Dublin-San Ramon Services District Recycled Water Treatment Facility produces approximately 4 million gallons per day (mgd) of recycled water, and there are plans to modify the facility to provide an additional 2.0 mgd of recycled water. See City of Pleasanton

Recycled Water Feasibility Study (Carollo 2013). In the interim, the City has an agreement to obtain up to 333,000 gallons of recycled water per day from the City of Livermore. Recycled water deliveries from Livermore would cease once the improvements to the Dublin-San Ramon Services District Recycled Water Treatment Facility are completed.

### **Flood Mapping**

Portions of the Plan Area are currently located within a Federal Emergency Management Agency (FEMA) 100-year flood hazard area. Exhibit 3.8-1 shows the current mapped extent of the 100-year flood zone within and adjacent to the Plan Area.

Existing FEMA maps do not reflect all flood control improvements in the area completed in 2004. The improvements made in 2004 include completion of improvements to the Arroyo Mocho channel, which now provides 100-year level of flood protection up to El Charro Road and extending upstream from that point along the Arroyo las Positas. These 2004 improvements have altered the floodplain both upstream and downstream of El Charro Road. FEMA has not yet issued a Letter of Map Revision to account for the altered flood plain.

The City of Livermore has also made significant improvements upstream of El Charro Road as part of the El Charro Specific Plan. These improvements reduce flooding from the Arroyo las Positas to the north overbank. FEMA issued a Conditional Letter of Map Revision (CLOMR) in February 2010 for these improvements, and the revised floodplains and floodway are shown in Exhibit 3.8-2. The CLOMR included a more detailed analysis of the Arroyo Mocho, Arroyo las Positas, and the Chain of Lakes. The City of Livermore is currently working on a Letter of Map Revision (LOMR) application so the extensive improvements can be formally reflected in FEMA mapping.

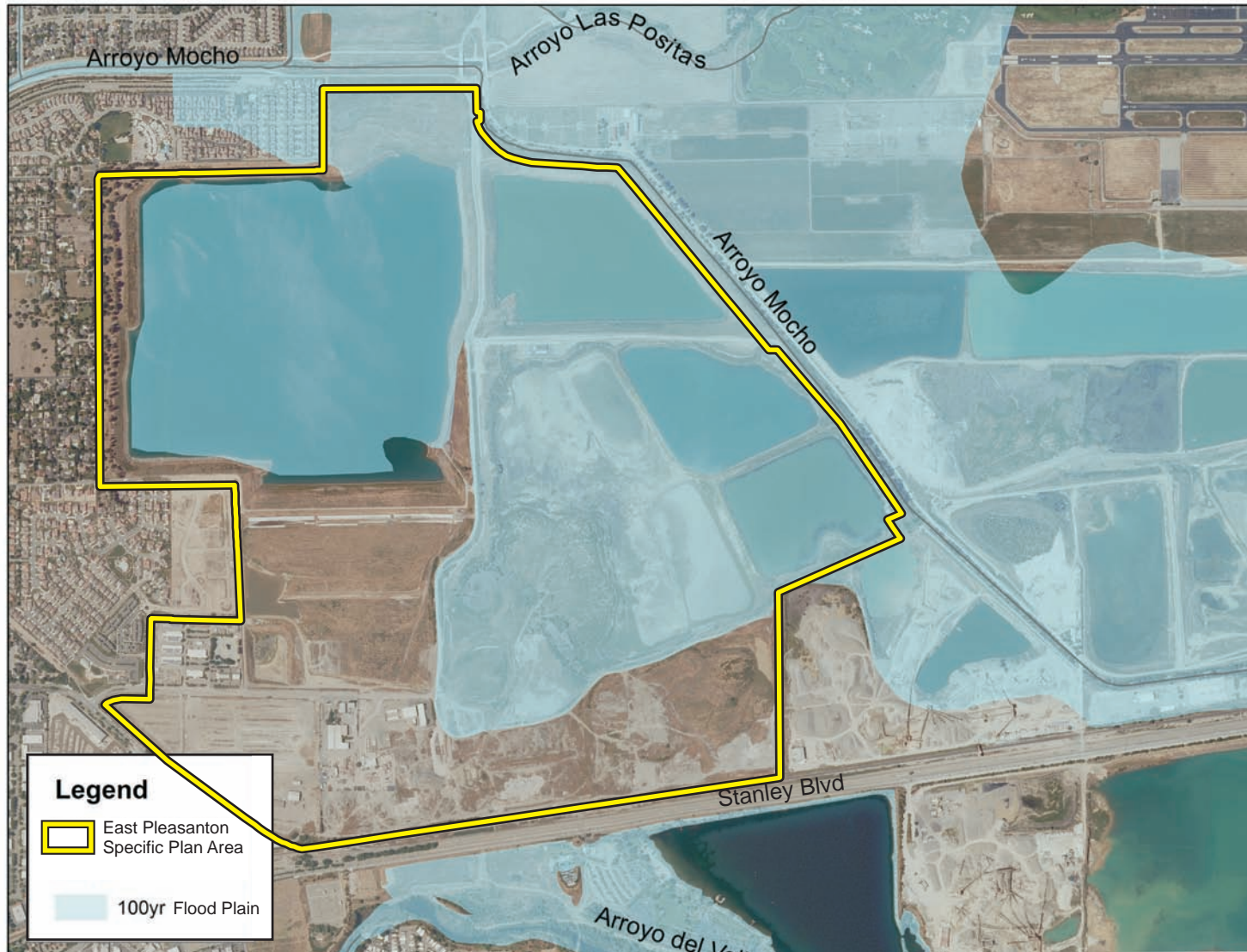
## **3.8.3 - Regulatory Framework**

### **Federal**

#### ***Clean Water Act***

Section 303 of the 1972 Federal Clean Water Act (CWA) requires states to adopt water quality standards for all surface waters of the United States. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. (See a description of State Porter-Cologne Water Quality Control Act, below.) Standards are based on the designated beneficial use(s) of the water body. Where multiple uses exist, water quality standards must protect the most sensitive use.

Section 402 of the CWA mandates that certain types of construction activity comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase II Rule, issued in 1999, states that construction activities that disturb land equal to or greater than 1 acre require permitting under the NPDES program. Currently, more stringent requirements apply, as outlined in the Stormwater Municipal Regional Permit issued by the Regional Water Quality Control Board. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the SWRCB and implemented and enforced by the nine RWQCBs. The EPSP Area is within the boundaries of the San Francisco Bay RWQCB.



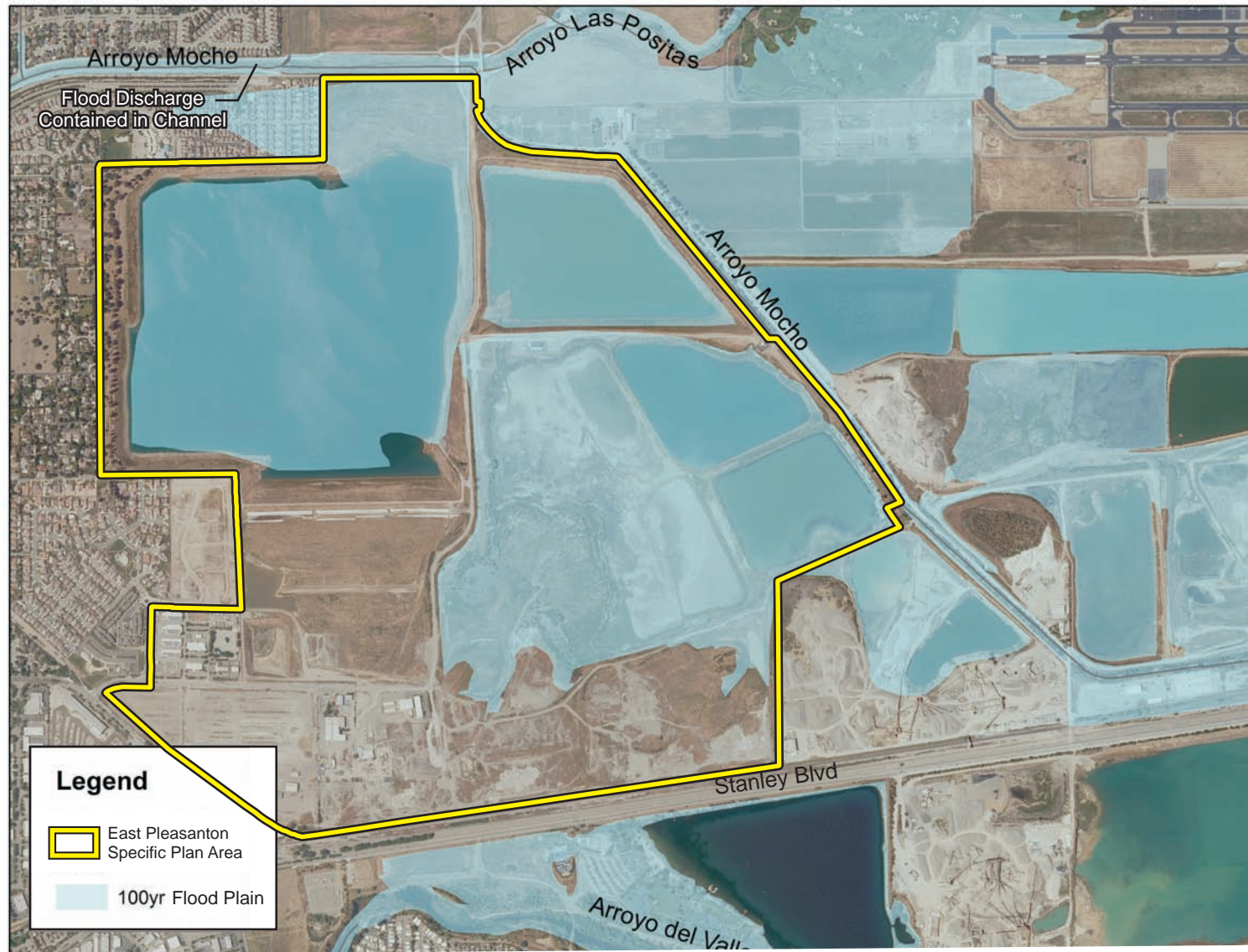
Source: FEMA Flood Data.



Note: Residences in the existing neighborhood north of Lake I and south of the Arroyo Mocho are not within the 100-year flood zone and do not need flood insurance. The Federal Emergency Management Agency has not yet updated the 100-year flood map to reflect this.

## Exhibit 3.8-1 Effective FEMA Map as of 2012

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Source: FEMA Flood Data.



Note: Residences in the existing neighborhood north of Lake I and south of the Arroyo Mocho are not within the 100-year flood zone and do not need flood insurance. The Federal Emergency Management Agency has not yet updated the 100-year flood map to reflect this.

**Exhibit 3.8-2**  
**Proposed Alteration to FEMA Map**  
**Based on Recently Completed Infrastructure Improvements**

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This General Permit requires all dischargers, where construction activity disturbs one (1) or more acres, or as amended by the RWQCB, to take the following measures:

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off site into receiving waters.
2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.
3. Perform inspections of all BMPs.

To obtain coverage, the landowner must file a Notice of Intent (NOI) with the SWRCB. The NOI is required to include the requirements listed above. When project construction is completed, the landowner must file a notice of termination.

The law requires that a permit (Section 404) be obtained from the United States Army Corps of Engineers (USACE) for any dredge or fill materials into wetlands or waters of the United States.

### ***National Pollution Discharge Elimination System (NPDES)***

Point source discharges to surface waters are generally controlled through waste discharge requirements issued under the NPDES permits. Although the NPDES program was established by the CWA, the EPA has delegated management of California's NPDES permit program to the State Water Resources Control Board and the nine regional (RWQCB) offices. Issued in five-year terms, an NPDES permit usually contains components such as discharge prohibitions, effluent limitations, and necessary specifications and provisions to ensure proper treatment, storage, and disposal of the waste. The permit often contains a monitoring program that establishes monitoring stations at effluent outfall and receiving waters (California Regional Water Quality Control Board, San Francisco Bay Region, 2007). The 1987 amendments to the Clean Water Act (Section 402[p]) provided for the U.S. EPA regulation of non-point pollution sources from municipal, construction, and industrial activities.

#### *Municipal*

In 1990, the RWQCB adopted the Phase 1 NPDES permits for urban runoff discharges from municipalities of over 100,000 people. In 2003, the RWQCB issued Phase 2 NPDES permits to cities of 50,000 to 100,000. The City of Pleasanton is part of the Alameda Countywide Clean Water Program (Program) that has been issued a Phase I National Pollutant Discharge Permit (NPDES) under the Clean Water Act for discharge of storm water runoff. The Program is an association of cities and towns in the Alameda County that share a common permit to discharge stormwater to San Francisco Bay.

#### **Construction**

In 1990, the EPA published regulations for construction sites that disturbed 5 acres or more of soil. In 1999, the EPA lowered the permitting threshold from 5 acres to 1 acre, or less than 1 acre but sites that are part of a larger common plan of development that in total disturbs one or more acres. These construction sites must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).

Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of a SWPPP. The SWPPP should contain a site map(s) that shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography (both before and after construction), and drainage patterns across the project. The SWPPP must list best management practices (BMPs) that the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program and a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs.

### **Industrial**

The Industrial Storm Water General Permit Order 97-03-DWQ (General Industrial Permit) is an NPDES permit that regulates discharges associated with 10 broad categories of industrial activities. The General Industrial Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The General Industrial Permit also requires the development of a SWPPP and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce storm water pollution are described. The General Industrial Permit requires that an annual report be submitted each July 1. Facility operators may be able to participate in a group monitoring program.

### **State**

#### ***Porter-Cologne Water Quality Control Act***

The Porter-Cologne Water Quality Control Act of 1969 authorized the SWRCB to provide comprehensive protection for California’s waters through water allocation and water quality protection. The SWRCB implements the requirement of the Clean Water Act Section 303, indicating that water quality standards have to be set for certain waters by adopting water quality control plans under the Porter-Cologne Act. The Porter-Cologne Act established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality plans for areas in the region, identifying water quality objectives, and issuing NPDES permits and Waste Discharge Requirements (WDRs). Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. The Porter-Cologne Act was later amended to provide the authority delegated from the Environmental Protection Agency (EPA) to issue NPDES permits.

Section 303(d) of the CWA requires that the SWRCB identify surface water bodies within California that do not meet established water quality standards. Once identified, the affected water body is included in the SWRCB’s “303(d) Listing of Impaired Water Bodies,” and a comprehensive program must then be developed to limit the amount of pollutant discharges into that water body. This program includes the establishment of “total maximum daily loads” (TMDL) for pollutant discharges into the designated water body. The most recent 303(d) listing for California was approved by the EPA in 2010.

### **California Water Code Section 10910 (b)**

According to California Water Code Section 10910(b), any city or county that determines a new development project is subject to the California Environmental Quality Act (CEQA) must prepare a water supply assessment (WSA) if the development qualifies as a “project” pursuant to Water Code Section 10912. A WSA applies to certain projects including planned non-residential buildings with square footage of at least 1,500,000 and projects with more than 1,000 residential units. If there is a “public water system” for the project, the water supplier shall prepare the water supply assessment. A public water system is defined as a system that has 3,000 or more service connections and provides piped water to the public for public consumption. Under this definition, the City is a “public water system” as it provides piped water to the public for consumption and has more than 21,000 service connections.

### **California Dam Safety Act**

The State of California Dam Safety Act requires submittal of inundation maps to the California Office of Emergency Services (OES) for any dams whose total failure would result in loss of life or personal injury. This law also requires local jurisdictions to adopt emergency procedures for the evacuation and control of populated areas below such dams.

### **Title 23 Model Water Efficient Landscape Ordinance**

California Code of Regulations, Title 23, requires use of Smart Controllers and separate irrigation-only meters and rain sensors for water-conserving irrigation system design.

## **Local**

### **City of Pleasanton**

#### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs that are relevant to hydrology and water quality:

- **Policy 1:** To ensure sustainability, promote the conservation of water resources.
  - **Program 1.1:** Prohibit water supply production policies and practices which would deplete groundwater resources below existing sustainable levels.
  - **Program 1.2:** Foster water conservation practices which do not allow depletion of groundwater and surface water resources to the extent that they cannot be replaced within the same water season.
  - **Program 1.4:** Work with Zone 7 Water Agency to investigate innovative and more efficient ways to recharge aquifers and other groundwater resources.
  - **Program 1.5:** Utilize cost-effective water reclamation and recycling techniques for the purpose of water conservation rather than as a new source of water which must be used to sustain new and existing development, where these techniques can be implemented without degrading surface water and groundwater quality.
  - **Program 1.7:** Require the installation of water conservation devices in new construction and additions.
  - **Program 1.13:** Plant drought-tolerant landscaping in appropriate locations. All landscaping aspects from plant selection to irrigation methods should be designed to reduce water demand, decrease runoff, and minimize impervious surfaces.

- **Policy 2:** Preserve and enhance streambeds and channels in a natural state.
  - **Program 2.4:** Design projects adjacent to the arroyos to protect habitat areas.
  - **Program 2.5:** Work with Zone 7 Water Agency to restore arroyos consistent with its Stream Management Master Plan.
  - **Program 2.7:** Locate wetland buffers between a wetland and proposed, existing, or potential development. These buffers should be of sufficient width and size to protect species most sensitive to development and should be designed to complement the habitat value of the wetland resource.
  - **Program 2.8:** Require that future developments result in no net loss of wetlands.
- **Policy 3:** Protect the quality and quantity of surface water and groundwater resources in the General Plan Area.
  - **Program 3.4:** To preserve areas with prime percolation capabilities, regulate projects that use toxic chemicals including herbicides in water recharge areas, such as adjacent to arroyos.
  - **Program 3.6:** Prohibit new septic systems, automobile dismantlers, waste disposal facilities, industries utilizing toxic chemicals, and other potentially polluting uses in areas where pollution could impact flood waters, groundwater, streams, creeks, or reservoirs.
  - **Program 3.7:** To the extent compatible with the goal of maintaining water quality and public safety, retain water recharge areas, if feasible, as permanent open space accessible to the public.
  - **Program 3.9:** Support the policies and programs contained in the Water Quality Control Plan for the San Francisco Bay Basin to the extent they are consistent with the City's policies for water quality.
  - **Program 3.11:** Support Zone 7 in implementing its Stream Management Master Plan so as to protect and enhance the water quality of streams and groundwater.
  - **Program 4.5:** Utilize water reclamation methods to the fullest extent feasible, where safe and nonpolluting.
  - **Program 4.9:** In anticipation of planned future growth in Pleasanton, continue working with Zone 7 to plan and provide for sufficient future water supplies.

### ***Zone 7 of the Alameda County Flood Control and Water Conservation District (Zone 7 Water Agency)***

Alameda County Flood Control and Water Conservation District consists of 10 active zones, of which Zone 7 covers the eastern portion of Alameda County, which includes the cities of Dublin, Pleasanton, and Livermore, and adjacent portions of unincorporated Alameda County). Pursuant to Section 36 of the District Act, Zone 7 of this District (Zone 7 Water Agency, or Zone 7) was established in 1957 to address regional flood control and water supply issues.

In general, an encroachment permit is required for reviewing and inspecting proposed work of any nature that has the potential to impact any existing flood control or water supply facilities. Where buildout of the proposed Specific Plan would affect or be expected to affect a Zone 7 flood control channel, the development would have to obtain and comply with a Zone 7 encroachment permit.

*Stream Management Master Plan.* Zone 7, in pursuing its flood control mission, has developed a Stream Management Master Plan in collaboration with Tri-Valley cities, park districts, businesses,

and other stakeholders. The heart of the Plan is the Chain of Lakes, which will store excess water and protect the Tri-Valley area against flooding from 100- and 500-year storm events.

*Master Water Recycling Permit.* In July 1992 Section 13523.1 was added to the California Water Code, authorizing Regional Water Quality Control Boards to issue master reclamation permits to a producer and/or distributor of recycled water in lieu of prescribing individual water reuse requirements for a user of recycled water.

*Zone 7 Salt Management Plan.* In May 2004, Zone 7, in cooperation with the other agencies, published the Salt Management Plan to address the increasing level of Total Dissolved Solids in the Main Basin. The Plan was approved by the Regional Water Quality Control Board in October 2004 and was incorporated into Zone 7's Groundwater Management Plan in 2005.

#### **City of Pleasanton Municipal Code.**

The City of Pleasanton has incorporated stormwater and stormwater quality regulations into its municipal code included in the following code chapters: Chapter 9.14 Storm Water Management and Discharge Control, Chapter 9.30 Water Conservation Plan, Chapter 13.04. Encroachments, Chapter 15.16 Connections to Sewerage Systems, Chapter 15:24 Sewer Service Regulations, Chapter 15.28 Sewer Use Regulations, Chapter 15.36 Wastewater Discharge Permits, Chapter 17.08 Flood Damage Protection, and Chapter 19.40 Improvements.

### **3.8.4 - Methodology**

#### **Thresholds of Significance**

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hydrology and water quality impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would:

- a) Violate any water quality standards or waste discharge requirements.
- 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.
- 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.
- 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.
- 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.
- f) Otherwise substantially degrade water quality.

- 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.
- h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows.
- 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.
- j) Inundation by seiche, tsunami, or mudflow. (Refer to Section 7, Effects Found not to be Significant.)

### 3.8.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Surface Water Quality

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**Impact HYD-1: Development and land use activities contemplated by the Specific Plan would not violate water quality standards or waste discharge requirements.**

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#### ***Impact Analysis***

The following impact analysis addresses thresholds of significance a) and f).

The Specific Plan proposes future development that could affect water quality. Both construction and operation of the proposed structures planned by the Specific Plan could potentially degrade water quality, as discussed below.

#### *Construction*

Construction and grading would require temporary disturbance of surface soils and vegetative cover. In addition, construction and grading could create erosion and increased sedimentation in local water bodies. Chemicals associated with construction vehicles use such as leaks of fuel, lubricants, fallout from exhaust, and other related pollutants may also be released.

Development within the Plan Area would be required to comply with the Construction General Permit as required by the San Francisco RWQCB and standard conditions of approval. Compliance with the Construction General Permit would require a SWPPP designed to reduce the potential impacts to surface water quality throughout the construction period of the project. The SWPPP would require BMPs in order to comply with water quality standards and reduce potential impacts. The SWPPP would prescribe construction-phase BMPs to adequately contain sediment on-site and prevent construction activities from degrading surface runoff. The erosion control plan in the SWPPP would include components for erosion control, such as phasing of grading, limiting areas of disturbance, designation of restricted-entry zones, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provision for revegetation or mulching. The plan would also be required to prescribe treatment measures to trap sediment once it has been mobilized, at a scale and density appropriate to the size and slope of the catchment. These measures typically include inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or

sediment ponds. The BMPs would be implemented in accordance with criteria in the California Stormwater BMP Handbook for Construction [1] or other accepted guidance. The identified SWPPP Manager would ensure proper implementation, maintenance, and performance of the BMPs during the construction phase of the project.

Compliance with the Construction General Permit and implementation of the SWPPP and BMPs would effectively control erosion and immobilize other pollutants during construction of the Specific Plan facilities and the project would not violate water quality standards. Impacts would be less than significant.

#### *Operation*

Development would include retail, residential, office, industrial land uses, and park uses that could be sources of stormwater pollution. Materials commonly associated with these uses include cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (such as many household cleaners), disinfectants, fertilizers, pesticides and trash.

Buildout of the Specific Plan would increase impervious surfaces throughout the EPSP Area, which can collect and convey pollutants. However, the Specific Plan would also preserve a significant amount of open space and pervious surfaces that can decrease the amount of pollutants that might otherwise be conveyed. Open space, parks, and lakes would make up approximately 71 percent of the total 1,110 acres, and these pervious surfaces provide opportunities for settlement and absorption of pollutants.

The Base Plan would be required to comply with the regulations set forth by the San Francisco Bay Region National Pollutant Discharge Elimination System (NPDES) Municipal Regional Stormwater Permit (MRP). In particular, development is subject to section C3 requirements, which include implementation of a Storm Water Management Plan (SWMP) applicable to the Base Plan design and post project operation and maintenance. Two fundamental components are associated with the SWMP: 1) treatment for pollutants collected in stormwater through the use of low impact development (LID) measures, and 2) no net increase in the erosion potential of the receiving stream over the pre-project (existing) condition. LID treatment measures include infiltration, harvesting and reuse, evapotranspiration, or biotreatment. All LID treatment measures would be required to be designed in accordance with engineering criteria in the California Stormwater BMP Handbook for New and Redevelopment [2] or other accepted guidance and designs listed in Section C.3.d. of the MRP. Implementation of the SWMP would require the preparation of a clearly defined operations and maintenance (O&M) plan to ensure that installed stormwater treatment measure(s) and hydromodification management control(s) are inspected and properly operated and maintained for the life of the project. In addition, identification of responsible parties and adequate funding to operate and maintain stormwater improvements would be required through a legally enforceable agreement or mechanism (e.g., homeowner's association, property deed, sales, or lease agreement). Compliance with NPDES permitting requirements and implementation of the SWMP would ensure operational stormwater impacts are less than significant.

The Alameda County Flood Control and Water Conservation District requires an encroachment permit to review and inspect proposed work of any nature that has the potential to affect existing flood control or water supply facilities within Zone 7. Although the lakes within the EPSP Area are to remain, an encroachment permit would be required in order to address projects within the EPSP Area that may have an impact on the lakes. Therefore, final designs would be subject to oversight and requirements related to subjects under the District’s purview, which includes water quality. Application for and approval of required Zone 7 encroachment permits would ensure impacts would be less than significant.

With the required implementation of RWQCB, NPDES, and SWMP requirements, as well as the acquisition of a Zone 7 encroachment permit, the Base Plan would not contribute to the violation of water quality standards. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Groundwater**

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**Impact HYD-2:**      **Development and land use activities contemplated by the Specific Plan would not 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.**

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**Impact Analysis**

The following impact analysis addresses threshold of significance b).

*Groundwater Use*

Development of the Plan Area would result in an overall increase in potable water use compared to the existing condition. The existing lakes would remain and would not require additional water supplies; however, proposed park uses such as sports fields and turf would use either potable or recycled water for irrigation. Residential and commercial development would also increase water use compared with the existing conditions. However, implementation of the City’s recycled water infrastructure and use expansion program both within and outside of the Plan Area would offset the increased potable water demand.

As indicated by the General Plan Housing Element Background, water supply is an issue at the forefront of long-term planning efforts in the City. Continued drought conditions will require the City to adopt new methods to stretch its limited supply of water. In May of 2014, the City declared a Local Drought Emergency and instituted a Stage 3 drought declaration intended to reduce water



consumption by 25 percent. The City has also approved amendments to Chapter 9.30, Water Conservation Plan, of the Municipal Code, outlining further water reduction measures, including restrictions on outdoor irrigation and decorative water features. In addition, the City is moving forward with its recycled water program, which, as indicated, will reduce the demand for potable water within Zone 7 and assist in creating a more reliable water supply. The City also possesses the flexibility to institute more stringent measures to reduce water demand in the event of a prolonged drought. These measures will assist in ensuring the City's water supply will meet planned future demand. Furthermore, the Specific Plan requires that irrigation water for all but single-family residential development be met through a recycled water system, and Plan Area developers will be responsible for a portion of funding the cost of extending the City's existing recycled water distribution system to provide irrigation water to other parts of the City that currently use potable water for irrigation.

A project specific water supply assessment evaluated water demand for the Plan Area under a variety of land use scenarios. Under the use scenario that most closely matches the proposed Base Plan (Option 5), the Specific Plan Area would consume 1,041 acre-feet of water per year (WJM C&E 2014). The City's 2010 Urban Water Management Plan previously evaluated the City's 2009 General Plan, which included the entire Specific Plan area. The UWMP contemplates potable water service to its new and redevelopment areas with the implementation of conservation programs and use of recycled water to meet some of the existing potable water irrigation demands. As a result, the Water Supply Assessment concluded that the Specific Plan water use would be fully mitigated through the implementation of programs defined in the UWMP (WJM C&E 2014). In addition, the UWMP evaluated water supply for normal, dry, and multiple dry years, and demonstrated that the City can meet 100 percent of existing and planned supplies in all water year types (WJM C&E 2014). Based on the analysis, and consideration of the future uses of the Specific Plan Area in the City's long-term water planning, there would be sufficient water supply for the Base Plan, and the Base Plan would not substantially deplete groundwater supplies. Impacts would be less than significant.

#### *Groundwater Recharge*

Build out would include 1,300 housing units and 1.6 million square feet of retail, office, and industrial land uses, resulting in additional impervious surface. Impervious surfaces could reduce infiltration of runoff and rainfall, which in turn could adversely affect aquifer recharge and groundwater supplies. However, 71 percent of the Plan Area would consist of lakes, open space, and parks that would remain pervious. Furthermore, the Plan Area would also include an onsite storm drain system that would direct the majority of runoff water into the Cope Lake basin, thereby allowing groundwater recharge to continue. As such, development would not be expected to substantially decrease groundwater recharge.

Because of the large amount of pervious surfaces planned for the EPSP Area and the incorporation of an onsite storm drain system, substantial effects on groundwater recharge are not anticipated and impacts would be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Drainage Patterns: Erosion**

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**Impact HYD-3: Development and land use activities contemplated by the Specific Plan would not 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.**

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**Impact Analysis**

The following impact analysis addresses threshold of significance c).

The Plan Area does not include any streams or rivers. Surface waters such as Lake I, Cope Lake, and Lake H would remain in their existing condition, which includes levees that prevent release of their waters into nearby rivers or creeks. Therefore, the Base Plan would not alter drainage patterns of these waters in any way that could increase erosion or siltation offsite.

**Construction**

Planned construction and grading within the Plan Area could cause soils to be exposed to runoff that could create erosion and increased sedimentation. Compliance with the Clean Water Act and NPDES regulations, including implementation of a SWPPP, would ensure that the Base Plan would not substantially degrade water quality, due to erosion or siltation (also see analysis on Surface Water Quality above). Therefore, implementation of the Base Plan would not result in substantial erosion or siltation from the alteration of existing drainage patterns during construction.

**Operation**

Under the Specific Plan, the lakes as well as a large proportion of open space would be retained and enhanced by adjacent trails and parks. Drainage patterns in these areas would be substantially preserved. The balance of the EPSP Area would be dominated by buildings, internal circulation, parking and related impervious surfaces. Drainage from much of this area would be collected and ultimately conveyed to the Cope Lake basin to allow for settlement and absorption and to prevent offsite runoff and sedimentation or conveyed to the existing underground storm drain system located in the Ironwood Drive right-of-way. The developable area north of Lake I would drain to Arroyo Mocho. Therefore, while drainage patterns in the developed portion of the Plan Area would change, the changes would not contribute to substantial erosion or siltation on- or offsite. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

### **Level of Significance After Mitigation**

Less than significant impact.

### **Drainage Patterns: Flooding**

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**Impact HYD-4:**      **Development and land use activities contemplated by the Specific Plan would not 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.**

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### **Impact Analysis**

The following impact analysis addresses threshold of significance d).

There are no streams or rivers located within the Plan Area. Surface waters within the Plan Area include Lake I, Cope Lake, and Lake H, all of which are protected by levees and, although they may receive water from the Arroyo Mocho, they do not release water into the watershed. In addition, these three lakes would be maintained in their current state and no change to the existing drainage pattern would result.

The developable portion of the Plan Area totals approximately 406 acres. Within the 406 acres, drainage would be divided into Western and Eastern Watersheds. The Western Watershed area contains the Kiewit Property and the Pleasanton Operations Service Center. This area is planned to drain through the existing underground storm drain system located in the Ironwood Drive right-of-way. The Eastern Watershed area would drain to Cope Lake through a new drainage system. The Pleasanton Transfer Station and Recycling Facility would drain either to the Ironwood Drive system or to Cope Lake, depending upon outlying flood water system capacities, detention potential, and/or attainment of private agreements.

The Western Watershed would utilize existing, 24- and 36-inch storm drain systems. The Eastern Watershed would employ surface level drainage systems, and possibly storm drain pipes ranging from 12 to 48 inches in diameter. All pipe systems would be designed consistent with the standards of the City of Pleasanton. Pipe sizes, manhole spacing, inlet locations, etc. would meet or exceed these standards.

Improvements in the Plan Area are subject to review by the Alameda County Flood Control and Water Conservation District in conjunction with a Zone 7 encroachment permit. As required by the Specific Plan, all onsite drainage facilities would be constructed by the Plan Area developers and, as a standard condition of approval, reviewed and approved by the City. Developers would also pay a local impervious surface fee for offsite impacts. The Specific Plan also requires the design of stormwater detention basins capable of retaining the increase in post development peak runoff resulting from 100-year storm events. Furthermore, the Specific Plan requires the implementation of improvements such as storm drain lines, streets, curb-and gutters, channels, culverts, and open spaces in a comprehensive manner so that no habitable buildings are subject to flooding during a 100-year storm event.

The onsite stormwater drainage would be phased concurrent with proposed development. Interim detention facilities maybe constructed onsite until the final facilities are constructed. These would be removed when the connection to the overall drainage system occurs.

As previously discussed, the project would include the development of a storm drain system, and would implement a SWMP to manage both the pollutant load, rate, and volume of stormwater in the Plan Area, thereby ensuring on or offsite flooding would not occur. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Surface Runoff**

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**Impact HYD-5: Development and land use activities contemplated by the Specific Plan would not 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.**

---

**Impact Analysis**

The following impact analysis addresses threshold of significance e).

The development of the Plan Area would result in 1,300 housing units and 1.6 million square feet of retail, office, and industrial land uses. As discussed below, drainage systems would be designed with sufficient capacity to accommodate stormwater runoff, and would convey stormwater in accordance with RWQCB requirements.

The developable portion of the Plan Area totals approximately 406 acres. Within the 406 acres, drainage would be divided into Western and Eastern Watersheds. The western drainage area consists of the Kiewit Property and the Pleasanton Operations Service Center. This area is planned to drain through the existing underground storm drain system located in the Ironwood Drive right-of-way and a detention basin that would mitigate post development flows (Exhibit 2-8). The eastern drainage area consists of the Pleasanton Transfer Station and Recycling Center, and the Legacy/Lionstone properties north and south of Busch Road, which would drain to Cope Lake through a new drainage system (Exhibit 2-8). The developable area north of Lake I would drain to Arroyo Mocho.

The western watershed would utilize existing, 24- and 36-inch storm drain systems. The eastern watershed would employ surface level drainage systems, and possibly storm drain pipes ranging from 12 to 48 inches in diameter. All pipe systems would be designed per the standards of the City of Pleasanton. Pipe sizes, manhole spacing, inlet locations, etc. would meet or exceed these standards.

As required by the Specific Plan, all onsite drainage facilities would be constructed by the Plan Area developers. Developers would also pay a local impervious surface fee for offsite impacts. Stormwater detention basins capable of retaining the increase in post development peak runoff resulting from 100-year storm events would be required. The Specific Plan also requires the implementation of improvements such as storm drain lines, streets, curb-and gutters, channels, culverts, and open spaces in a comprehensive manner so that no habitable buildings are subject to flooding during a 100-year storm event.

Also discussed under Impact HYD-1, the project would implement an SWMP to manage water pollutants and the rate and volume of runoff within the Plan Area. Infrastructure such as stormwater detention basins, channels, culverts, and open spaces are required by the Specific Plan to ensure 100-year storm volumes are contained. As such, impacts associated with stormwater drainage systems and polluted runoff would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Water Quality**

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**Impact HYD-6: Development and land use activities contemplated by the Specific Plan would not otherwise substantially degrade water quality.**

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**Impact Analysis**

The following impact analysis addresses threshold of significance f).

Although alteration of the land associated with both construction and new land uses could potentially result in degradation of water quality, compliance with NPDES permitting requirements and implementation of SWPPPs, SWMP and BMPs would ensure water quality related impacts would be less than significant.

*Construction*

As discussed in Impact HYD-1 above, construction and grading within the Plan Area could lead to erosion and increased sedimentation. In addition, construction may allow chemicals to be released due to an increase in vehicle and equipment use that could likely result in increased leaks of fuel, lubricants, fallout from exhaust, and other related pollutants. Construction activities would be subject to the standard protocols and best management practices required by the Construction General Permit as discussed in Impact HYD-1. As such, impacts would be less than significant.

*Operation*

Development of residential, light industrial, commercial, transportation, parks, and institutional uses may result in deposition of pollutants within the Plan Area (Pleasanton General Plan 2005-2025 DEIR, 3.6-4). However, additional pollutant sources and runoff water would be minimized, due to the

extensive open space, parks, and lakes that would be preserved as well as the planned extension of storm water drainage features and requirements of the SWMP (inclusive of bio-swales, culverts, open spaces, etc.). Compliance with the Clean Water Act and NPDES regulations, including implementation of operation SWMPs would ensure that the implementation of the Specific Plan would not substantially degrade water quality.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**100-Year Flood Hazard Areas**

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**Impact HYD-7:            Development and land use activities contemplated by the Specific Plan would place some housing and other land uses within a 100-year flood hazard area as mapped on a federal Flood Insurance Rate Map but would raise the first floor above the base flood elevation.**

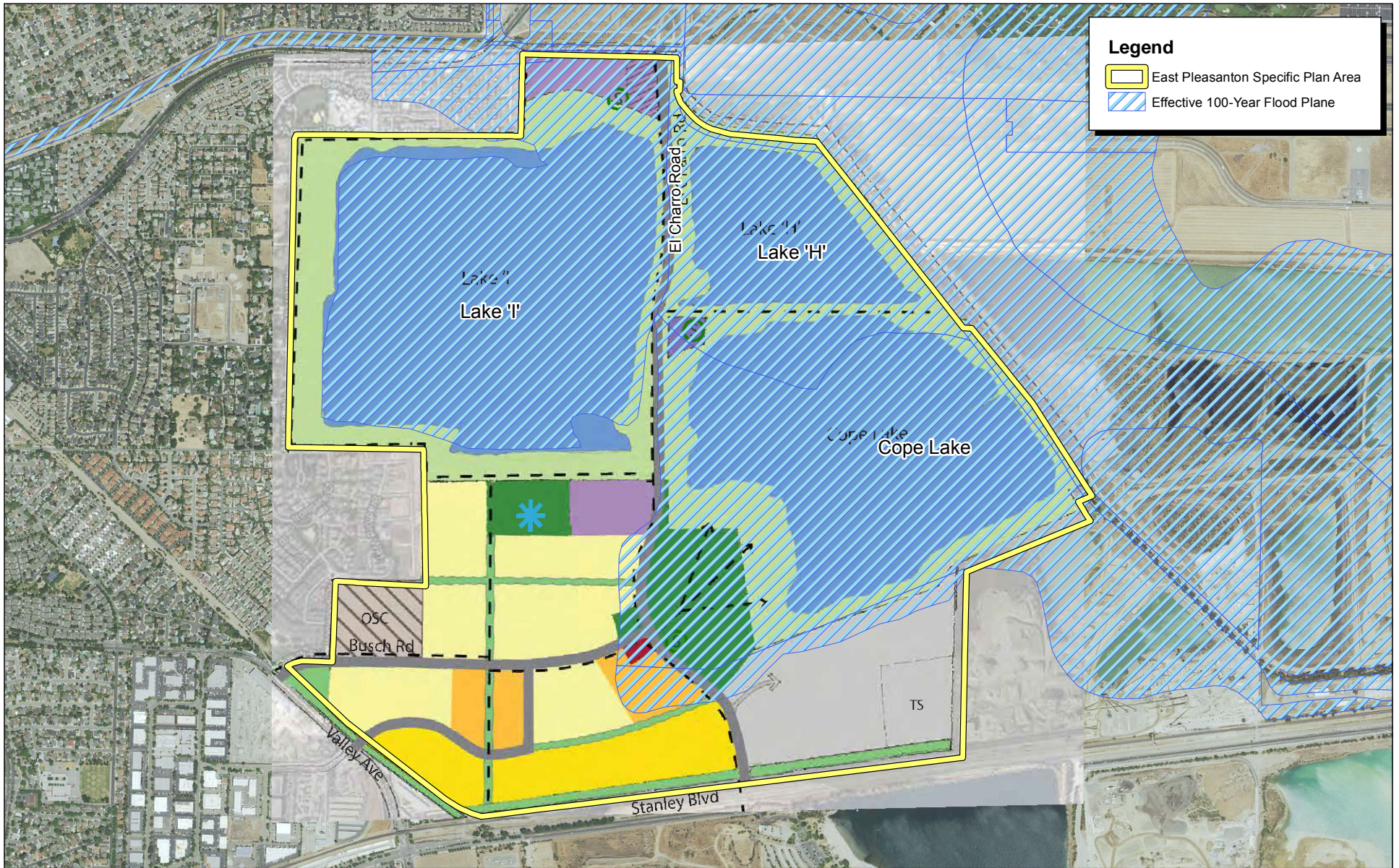
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**Impact Analysis**

The following impact analysis addresses threshold of significance g) and h).

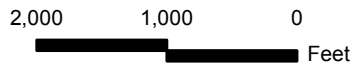
Construction of new housing within the 100-year floodplain would be a potentially significant impact. A portion of the Plan Area is located in the Federal Emergency Management Agency (FEMA) flood hazard area for a 100-year flood (Exhibit 3.8-1). However, the City of Livermore has completed extensive flood control improvements and is requesting updated floodplain mapping from FEMA to reflect the current extent of the 100-year floodplain. The updated mapping alters the 100-year FEMA floodplain within the Plan Area (see Exhibit 3.8-2). These mapping changes should be finalized in 2015.

As shown in Exhibit 3.8-3, approximately 15.7 acres of residentially designated land uses are within the EPSP Area are within the existing 100-year floodplain. It is possible that El Charro Road would be built up enough that the 100-year flood flows would be held back by the roadway’s prism. If this is the case, no residential development proposed in the Plan Area would be within the 100-year floodplain. Land owners and the City of Pleasanton would be required to follow the regulatory process to officially remove areas west of El Charro Road from FEMA’s 100-year flood hazard area, similar to the process being completed by the City of Livermore (as discussed under Flood Mapping in Section 3.8.2). However, should the 100-year flood hazard area remain as shown in Exhibit 3.8-3 any residential uses developed therein would be required to abide by Pleasanton Municipal Code Section 17.08.150, which requires the lowest floor to be elevated to or above the base flood elevation and such elevation be certified by a registered professional engineer or surveyor, or verified by the community building inspector. An elevation certificate by a registered engineer would be required to avoid a flood insurance policy requirement.



Source: ESRI Aerial Imagery. City of Pleasanton.

Exhibit 3.8-3  
 Specific Plan Land Use  
 and Effective FEMA 100-Year Flood Plain



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The Specific Plan also proposes non-residential land uses within the 100-year floodplain, including the northern Campus Office and Retail Overlay, Retail, and portions of Public Park and Industrial land use areas. Construction within these land use areas would also be required to abide by Pleasanton Municipal Code Section 17.08.150. Furthermore, as discussed in Impact HYD-4, drainage facilities for all development within the Plan area would be reviewed and approved by the City to ensure the increase in post development peak runoff resulting from a 100-year storm event would be contained onsite and would not result in flooding on or off site. While the 100-year flood hazard area may need revisions to reflect changed conditions related to El Charro Road, no changes would occur that would expand the 100-year floodplain into surrounding areas. Therefore, while the Specific Plan designates residential and other land uses within the 100-year flood hazard area, compliance with applicable Municipal Code regulations would reduce potential flooding impacts to less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Levee or Dam Failure**

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**Impact HYD-8: Development and land use activities contemplated by the Specific Plan would not 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.**

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**Impact Analysis**

The following impact analysis addresses threshold of significance i).

*Levee Failure*

Portions of the Plan Area are located within a FEMA-designated 100-year flood hazard area as discussed in Impact HYD-7 above. These floodplain areas surround and include the three lakes, Lake H, Lake I, and Cope Lake, as well as the Arroyo Mocho. Most of these surface water features are protected by uncertified levees. Therefore, in the event of levee failure the Plan Area could potentially be affected. However, a levee failure along western banks the Arroyo Mocho would most likely be contained within the lake system. In addition, these waters are within the jurisdiction of Zone 7 of the Alameda County Flood Control and Water Conservation District, which provides regular inspection and maintenance of its facilities. Therefore, flooding as a result of levee failure would not be expected.

*Dam Failure*

The City of Pleasanton has approximately 6,000 acres located within the dam failure inundation hazard area for Lake Del Valle Dam (City of Pleasanton 2005). The Del Valle Dam is under the jurisdiction of the California Department of Water Resources (DWR), Division of the Safety of Dams, and is periodically inspected to ensure adequate maintenance and to direct the owner to correct any deficiencies found. In addition, the City adopted an evacuation plan in 2002 for the event of dam failure. Lake Del Valle Dam is located approximately 7.5 miles southeast of the Plan Area. As

indicated in Figure 5-8 of the City of Pleasanton General Plan, the Plan Area is located in the Del Valle Dam inundation zone that indicates a 5- to 40-minute arrival time. As a safety measure, the Del Valle Dam normally stores from 25,000 to 40,000 acre-feet, although it has the capacity to store 77,100 acre-feet (City of Pleasanton 2009). Given the safety measures in place for maintaining the dam, and the low likelihood of inundation, threats of loss, injury, or death resulting from dam failure are considered less than significant.

***Level of Significance Before Mitigation***

Less than significant impact.

***Mitigation Measures***

No mitigation is necessary.

***Level of Significance After Mitigation***

Less than significant impact.

## 3.9 - Land Use and Planning

### 3.9.1 - Introduction

This section describes the existing land use and planning setting and potential effects from implementation of the Specific Plan within the Plan Area and its surroundings. Descriptions and analysis in this section are substantially based on the City of Pleasanton General Plan, the Pleasanton Municipal Code, the Livermore Municipal Airport Land Use Plan, the Alameda County Local Agency Formation Commission annexation criteria, and the East Pleasanton Specific Plan (Specific Plan).

### 3.9.2 - Environmental Setting

The Plan Area includes approximately 849 acres within Alameda County and approximately 261 acres within the Pleasanton city limits. Exhibit 2-2 shows the Plan Area boundaries in relation to surrounding jurisdictions. Approximately 630 acres are located within the City’s current Urban Growth Boundary (UGB) and 480 acres are located east of and outside of the UGB. The City of Pleasanton Sphere of Influence and the General Plan Planning Area wholly encompass the Plan Area.

#### Project Area Land Use

##### *Existing Land Use*

The Plan Area is part of the larger Livermore-Amador Valley Quarry Area Reclamation Plan area, and nearly the entire Plan Area has been mined for aggregate in the past. Lands in the Plan Area are owned by several public and private property owners, including the City of Pleasanton, the Alameda County Flood Control and Water Conservation District Zone 7 Water Agency (Zone 7), and private landowners.

Exhibit 2-3 shows the current parcel boundaries within the Plan Area. Table 3.9-1 lists the current property owners, acreages, and land uses of the parcels that comprise the Plan Area.

**Table 3.9-1: Specific Plan Land Ownership**

Site # <sup>1</sup>	Owner	Acreage
1–11	Zone 7 Water Agency (Alameda County - public lands)	588.5
12–19	Legacy/Lionstone Group	330.0
20–22	City of Pleasanton (public lands)	18.0
23–25	Pleasanton Transfer Station and Recycling Center	7.7
26–29	Pleasanton Gravel Company	115.5
30–31	Kiewit Infrastructure Company	50.4
<b>Total Acreage</b>		<b>1,110.1</b>

The main property owners and existing land uses within the Plan Area are described below.

#### *Zone 7 Water Agency*

The Zone 7 Water Agency provides flood protection to eastern Alameda County and delivers drinking water to retailers serving more than 200,000 people in Pleasanton, Livermore, Dublin and the Dougherty Valley area (Zone 7 Water Agency 2012). Within the Plan Area, the Zone 7 Water Agency lands consist of 588.5 acres, including Lake I and Cope Lake and the banks surrounding them.

- Lake I dominates the northwestern portion of the Plan Area and has steep banks. A recreational corridor with a walking trail is presently located along its western bank.
- Cope Lake dominates the middle and eastern portion of the Plan Area and has areas of steep banks. Adjacent to the north of Cope Lake is a pumping facility owned and operated by Zone 7.
- Lake H is owned by the Pleasanton Gravel Company, but is scheduled to be dedicated to Zone 7 in 2017.

Accordingly, Zone 7 is anticipated to own approximately 704 acres within the Plan Area by 2017. Lands owned and operated by Zone 7 are located within the unincorporated jurisdiction of Alameda County and are not subject to the City of Pleasanton zoning regulations related to land use (City of Pleasanton 2012b).

#### *Legacy/Lionstone Group*

The Legacy/Lionstone Group property consists of 330 acres that straddle the city limits in the southern portion of the Plan Area. Within the city-limits at the current terminus of Busch Road, the Legacy/Lionstone lands include a small office building, heavy equipment maintenance shop, limited warehousing space, lubricant storage shed, two temporary office buildings, ruderal vegetation, and debris piles. These lands appear highly disturbed from past industrial activities and include scattered debris and soil piles and ruderal vegetation. High-voltage lines extend along the southern border of the property along the Union Pacific Railroad tracks and Stanley Boulevard. Portions of the northern Legacy/Lionstone lands are also disturbed from past mining activities and contain significant areas of ruderal vegetation. A private extension of El Charro Road extends through the middle of the Legacy/Lionstone property.

#### *City of Pleasanton's Operations Service Center*

The City of Pleasanton's Operations Service Center (OSC) consists of 18 acres on the north side of Busch Road within the city-limits. The OSC site is developed with a series of corporation yard uses including office space, storage yards, facility maintenance-related equipment and materials, police firing range, and fire department training facility.

#### *Pleasanton Transfer Station and Recycling Center*

The Pleasanton Transfer Station and Recycling Center consists of 7.7 acres (n the south side of Busch Road and east of the Kiewit property). The site contains a large warehouse where refuse is sorted, exterior sorting areas, vehicle parking areas, debris piles, other industrial buildings, a scale and scale house, and an office building.

#### *Pleasanton Gravel Company*

The Pleasanton Gravel Company lands consist of 115.5 acres in the northeastern portion of the Plan Area, including the entirety of Lake H. Pleasanton Gravel Company currently owns Lake H, but it is scheduled to be dedicated to the Zone 7 Water Agency in 2017.

#### *Kiewit Infrastructure Company*

The Kiewit property consists of 50.4 acres on the south side of Busch Road within the city-limits. The property contains three storage/office buildings. The remainder of the site is vacant and consists of ruderal vegetation and large areas of concrete pads. High-voltage lines extend along Valley Avenue, at the property's southwest border.

### **Surrounding Land Uses**

#### ***North***

The northern edge of the Plan Area is bordered by Amaral Park, Mohr Elementary School, single-family housing, Arroyo Mocho Canal, Stoneridge Drive Specific Plan Area, El Charro Specific Plan Area, open space, agricultural land, and the Livermore Municipal Airport. Staples Ranch (within the Stoneridge Drive Specific Plan Area), includes a recently constructed continuing care facility and is planned to include a 17-acre community park along the north side of Arroyo Mocho Canal, as well as a 5-acre neighborhood park, commercial uses, and an auto mall along Interstate 580 (I-580). The east side of El Charro Road is being developed with the San Francisco Premium Outlets, open space and stormwater detention facilities under the El Charro Specific Plan in Livermore. East of the El Charro Specific Plan Area are the Livermore Golf Course and Livermore Municipal Airport.

#### ***East***

A quarry plant owned and operated by Vulcan Materials is located to the immediate east of the Plan Area. An access road, heavily used by gravel trucks, borders the eastern boundary of the Plan Area. Surface mining activities dominate the eastern boundary of the Plan Area, including active mining, dry mining pits, and former mining pits filled with groundwater. Horse stables and hay fields lie farther to the northeast, with the Livermore Golf Course and Livermore Municipal Airport located beyond.

#### ***South***

The Union Pacific Railroad tracks and Stanley Boulevard form the southern boundary of the Plan Area. Stanley Boulevard is a four-lane divided roadway. High-voltage power lines also run parallel with Stanley Boulevard and the railroad tracks. South of Stanley Boulevard are multiple land uses including more surface mining activities, an electrical substation, a BMX park, and Shadow Cliffs Regional Recreation Area which consists of an 80-acre lake, parking lots, an open space area, and an arroyo with a small chain of ponds.

#### ***West***

The western edge of the Plan Area is bordered by Valley Avenue and a variety of land uses including warehousing and other industrial uses, a self-storage facility, the Centerpointe Presbyterian Church, single-family housing, the Ironwood Active Adult Community, and the Martin Avenue residential neighborhood.

## Land Use Designations

Approximately 261 acres of the Plan Area are located partially within the City of Pleasanton; the remaining 849 acres are located within the unincorporated jurisdiction of Alameda County.

### **City of Pleasanton**

#### *General Plan*

The City of Pleasanton General Plan Land Use Map identifies seven land uses that may be considered for the Plan Area, as shown in Exhibit 3.9-1. The seven potential land uses are more specifically defined in the General Plan text, described below.

#### **Public and Institutional**

Any public or institutional use, including religious facilities, cemeteries, corporation yards, sewage treatment facilities, utility substations, hospitals, post offices, community centers, senior centers, libraries, and City Hall. Floor area ratios (FARs) are not to exceed 0.6. Certain uses such as warehouses where employee density and traffic generation are minimal, may be allowed with higher FARs provided they meet all other city requirements.

#### **High Density Residential**

Greater than eight dwelling units per gross developable acre are permitted. Any housing type (detached and attached single-family homes, duplexes, townhouses, condominiums, and apartments), in addition to religious facilities, schools, daycare facilities, and other community facilities, may be allowed in any of the residential designations, provided that all requirements of the Zoning Ordinance are met.

#### **Business Park**

This designation is intended primarily to accommodate high quality, campus-like development, including administrative, professional office, and research uses. Retail commercial uses are limited to those primarily serving business park employees. FARs are not to exceed 0.6.

#### **Retail/Highway/Service Commercial/Business and Professional Offices**

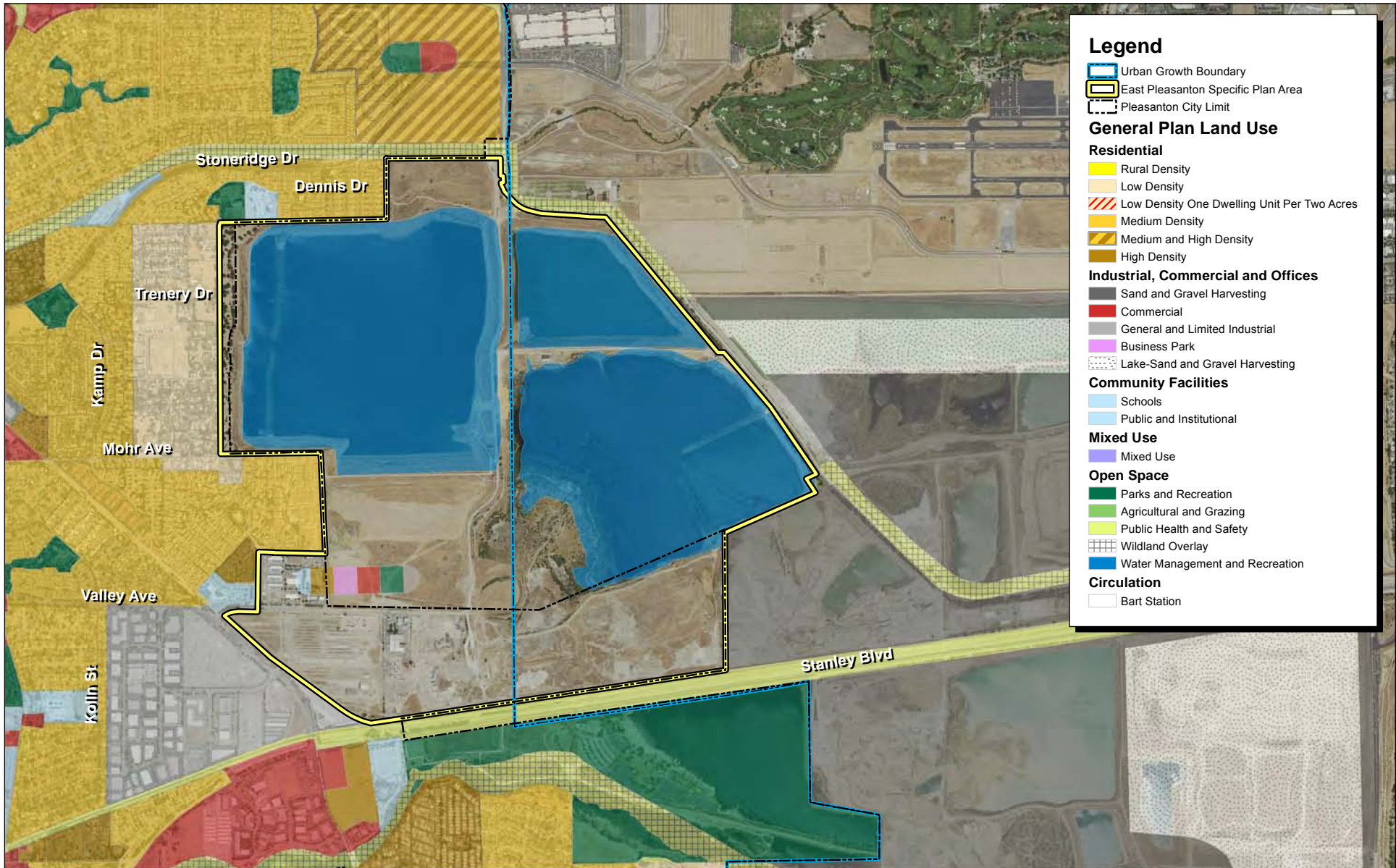
FARs are not to exceed 0.6, except for hotels or motels, which should not exceed 0.7. Certain uses, such as warehouses, where employee density and traffic generation are minimal, may be allowed with higher FARs, provided they meet the requirements of the Zoning Ordinance as well as all other City requirements.

#### **Parks and Recreation**

Neighborhood, community, and regional parks are permitted. Development is limited to community facilities that support or complement the park use. The Zone 7 report titled Preliminary Lake Use Evaluation for the Chain of Lakes (2014) recommends near term uses for H, I and Cope Lakes. Cope Lake was recommended for recreational and educational uses.

#### **General and Limited Industrial**

FARs are not to exceed 0.5. Certain uses, such as warehouses, where employee density and traffic generation are minimal, may be allowed with higher FARs, provided they meet the requirements of the Zoning Ordinance as well as all other City requirements.



**Legend**

- Urban Growth Boundary
- East Pleasanton Specific Plan Area
- Pleasanton City Limit

**General Plan Land Use**

**Residential**

- Rural Density
- Low Density
- Low Density One Dwelling Unit Per Two Acres
- Medium Density
- Medium and High Density
- High Density

**Industrial, Commercial and Offices**

- Sand and Gravel Harvesting
- Commercial
- General and Limited Industrial
- Business Park
- Lake-Sand and Gravel Harvesting

**Community Facilities**

- Schools
- Public and Institutional

**Mixed Use**

- Mixed Use

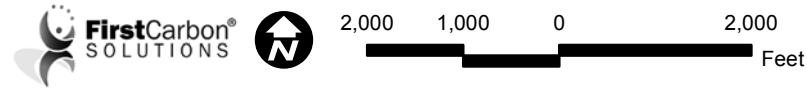
**Open Space**

- Parks and Recreation
- Agricultural and Grazing
- Public Health and Safety
- Wildland Overlay
- Water Management and Recreation

**Circulation**

- Bart Station

Source: ESRI Aerial Imagery. City of Pleasanton.  
 Note: With the exception of the Water Management, Habitat and Recreation area (existing lakes), the General Plan Map does not detail the actual location of the potential future land uses, but instead leaves this for the Specific Plan process to determine.



## Exhibit 3.9-1 Existing General Plan Designations

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### **Water Management/Habitat/Recreation**

This designation is reserved for lakes and ponds and the land immediately surrounding them. Most of the areas so designated were created as part of gravel mining reclamation. Uses include groundwater recharge, flood protection, habitat enhancement, and limited recreation. These water areas act as community separators on the east edge of Pleasanton where no significant development is allowed. As previously indicated Cope Lake was recommended for recreational and educational uses.

### **General Plan Assumptions**

The General Plan assumed that 4,150,000 square feet of retail, research and development, and industrial park would be developed within the EPSP Area. The General Plan also notes that the quarry lands and Chain of Lakes area create a valuable urban separator between Pleasanton and Livermore. The General Plan indicates that a 38-acre community park is planned by the City within the EPSP Area that may provide a gateway to the Chain of Lakes. Finally, the General Plan specifies that natural open space areas adjacent to the Zone 7 lakes be designed to include protective buffer zones.

### *Zoning Designations*

As shown on Exhibit 3.9-2, the portions of the Plan Area located within the City of Pleasanton are currently zoned Public & Institutional (Operations Service Center), and General Industrial (lands south of Busch Road).

### **County of Alameda**

The County of Alameda's General Plan designates the Plan Area outside of the City of Pleasanton as a mixture of Water Management, Low Density Residential and Medium Density Residential (County of Alameda 2000).

### **Livermore Airport Land Use Compatibility Plan**

The Livermore Municipal Airport is a city-owned general aviation facility that serves public, private, business, and corporate tenants and customers, including limited private jets. It is located to the northeast of the Plan Area. The facility occupies over 640 acres of land and contains two parallel runways: a 5,255-foot lighted main runway and a 2,700-foot unlighted training runway (City of Pleasanton 2012a).

The Airport has approximately 650-based aircraft and can accommodate over 200,000 annual aircraft operations. The airfield is accessible 24 hours a day and the air traffic control tower is operated daily by Federal Aviation Administration staff from 7:00 a.m. to 9:00 p.m. (City of Pleasanton 2012a).

The Alameda County Airport Land Use Commission (ALUC) was created in 1971 and adopted the Alameda County Airport Land Use Compatibility Plan (ALUCP) in 1977. The most recent updated ALUCP for the Livermore Airport was completed in August 2012, and includes provisions applicable to the Plan Area. Of primary importance are the (1) Airport Influence Area, (2) Airport Protection Area, (3) Safety Compatibility Zones, and (4) Height Referral Area. These classifications and the corresponding areas create zones that regulate the future development of outlying lands in a manner that the ALUCP indicates will ensure compatibility with regard to airport functions. The areas and zones are discussed in detail below (City of Pleasanton 2012a).

### *Airport Influence Area*

The Airport Influence Area (AIA) is the area in which current and future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses, as well as outlying lands on which uses could negatively affect the Airport. The ALUC is authorized to review local land use actions affecting land within the Airport Influence Area, including general plan amendments, specific plans, zoning, and building regulations. An ALUC's decision regarding a local land use proposal is required to be implemented unless (1) the City Council makes special findings in accordance with State law; and (2) the City Council makes a two-thirds majority vote in support of overriding the ALUC's decision (City of Pleasanton 2012a).

Exhibit 3.9-3 illustrates the location of the existing AIA boundary. The AIA extends west to Santa Rita Road, and south to Stanley Boulevard, encompassing the entire Plan Area (Alameda County 2012).

### *Airport Protection Area*

The City of Livermore established the Airport Protection Area (APA) for the Livermore Airport in 1991. The APA and associated policies were included as an amendment to the ALUCP in 1993 and prohibits new residential land use designations and the intensification of existing residential land use designations within its boundaries. The intent is to forestall adverse impacts on the health, safety and welfare of future residents that might otherwise live within the APA (City of Pleasanton 2012a).

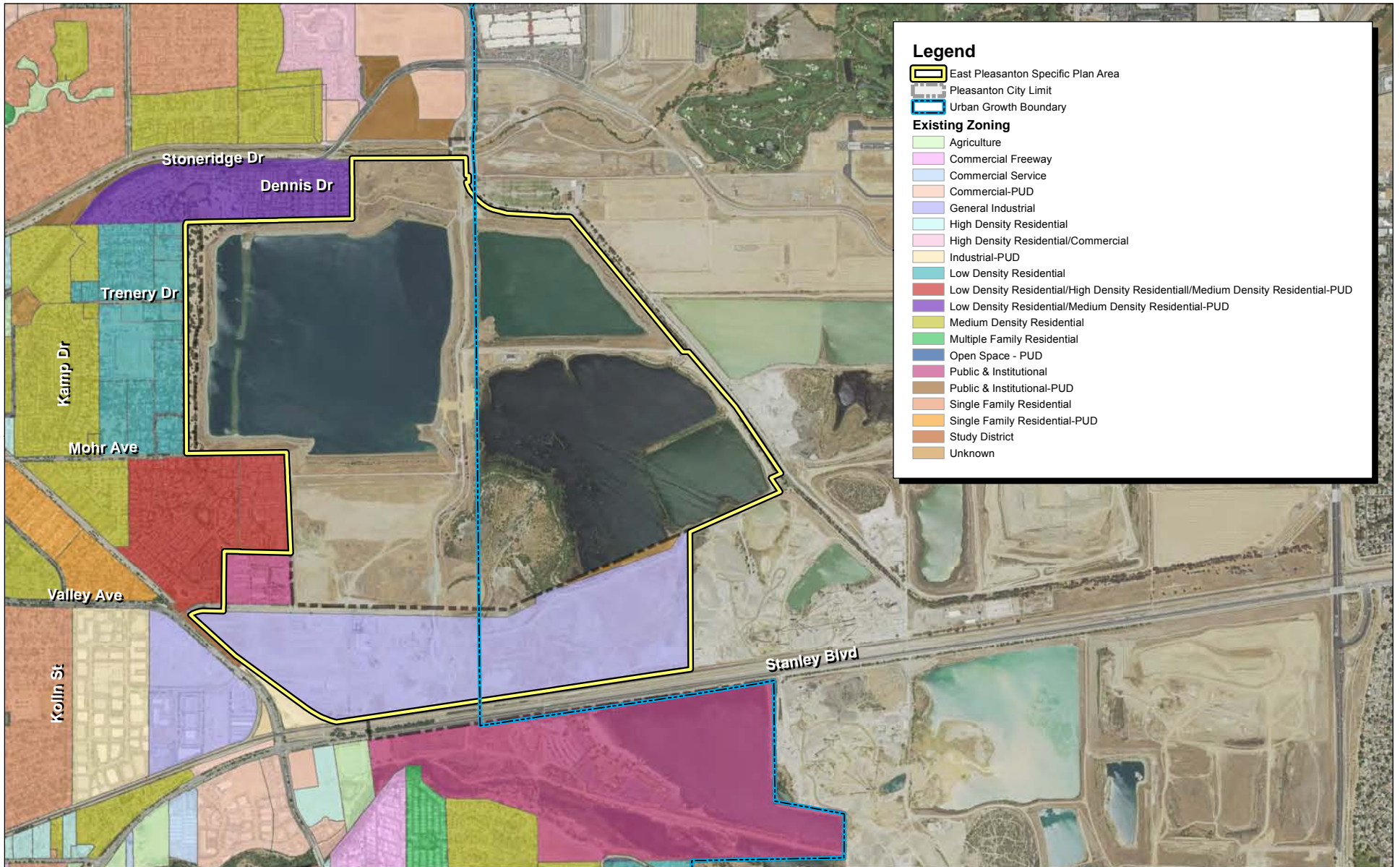
As shown on Exhibit 3.9-3, the northeastern portion of the Plan Area is located within the APA including Lake H, portions of Cope Lake and Lake I, as well as proposed destination use and a portion of the campus office and retail overlay land use. The APA is defined in the ALUCP as an area 5,000 feet north, east, and south of the airport runways, and 7,100 feet west of the airport runways (City of Pleasanton 2012a).

### *Safety Zones*

The ALUCP safety zones, define compatible and incompatible land uses. The safety zones established for Livermore Airport are based on accident data from general aviation airports with operational characteristics (runway lengths, classes of aircraft flow, traffic patterns, etc.) similar to those found at the Livermore Airport (City of Pleasanton 2012a).

As shown on Exhibit 3.9-3, three of these zones (Zones 4, 6 and 7) extend into the EPSP Area. Provisions relating to Safety Zones 4, 6 and 7 in the Plan Area, are summarized below:

- Zone 4 (Outer Approach/Departure Zone) – Prohibits children's schools, large day care centers, hospitals and nursing homes, indoor assembly with 300 or more people, outdoor assembly with 1,000 or more people, and golf courses. Buildings with more than three floors above ground are generally unacceptable.
- Zone 6 (Traffic Pattern Zone) – Allows residential and non-residential uses. Prohibits indoor and outdoor assembly with 1,000 or more people, children's schools, and golf courses.
- Zone 7 (Other Airport Environs Outside of Zones 1-6 but within the Airport Influence Area) – Allows residential uses.

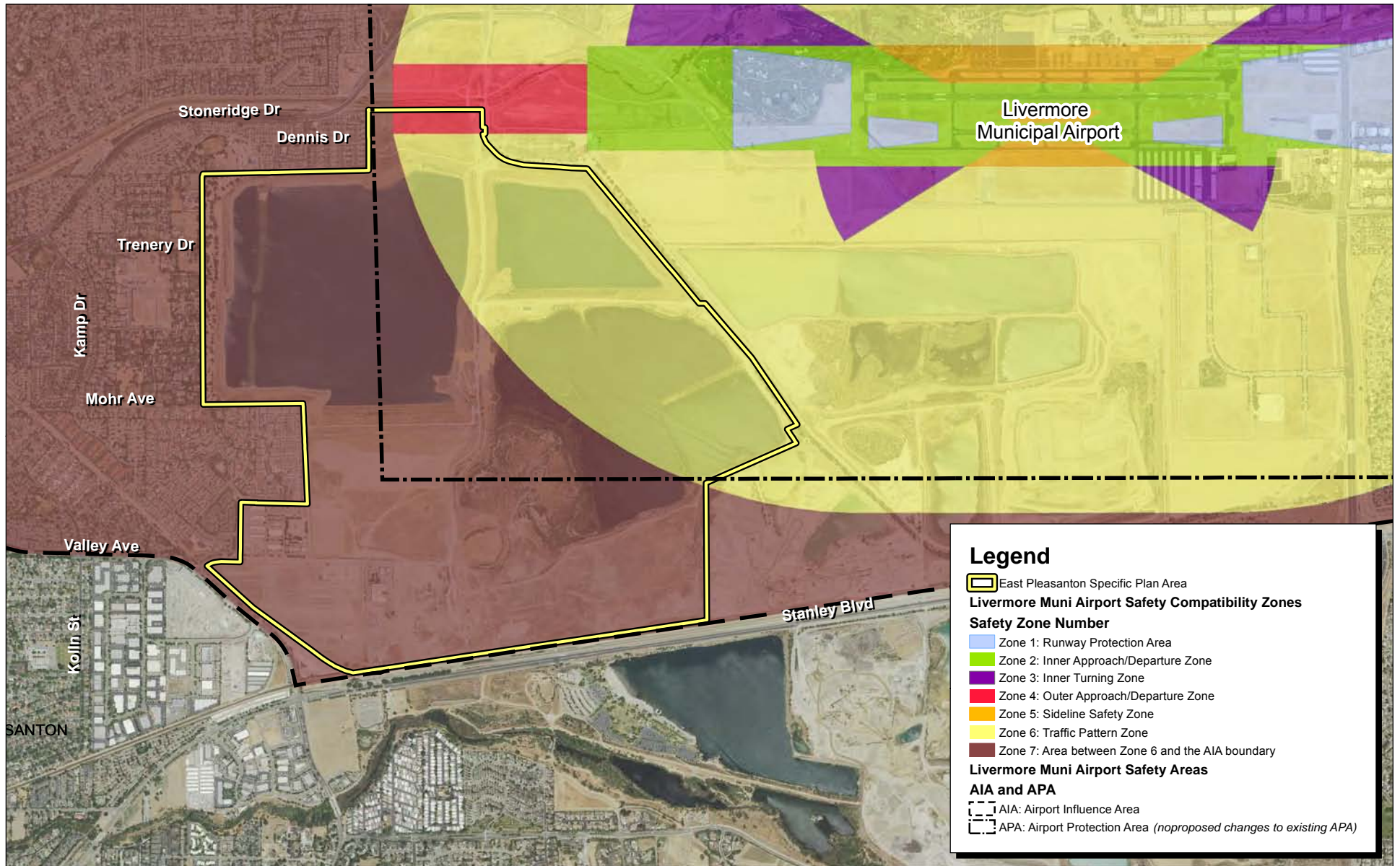


Source: ESRI Aerial Imagery. City of Pleasanton.



## Exhibit 3.9-2 Existing Zoning

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Source: ESRI Aerial Imagery. City of Pleasanton.



## Exhibit 3.9-3 Livermore Airport Land Use Compatibility

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The ALUCP discourages uses and landscaping that attract wildlife such as birds and deer, and hazards to flight such as uses which create glare or plumes (City of Pleasanton 2012a).

#### *Height Referral Area*

All of the Plan Area is located within the Height Referral Area. The Height Referral Area delineates the airspace of concern to the ALUC due to possible hazards to air navigation caused by tall structures. This is identical to Federal Aviation Administration (FAA) notification requirements for proposed construction or alteration. Any proposed construction project which would protrude into an identified airspace must be referred by the project sponsor to the FAA for an Aeronautical Study. Any local agency action that is subject to ALUC review and which would permit an object to protrude into the identified airspace must be referred to the ALUC for a “determination of plan consistency.” ALUC policies relating to height are then applied (City of Pleasanton 2012a).

#### **Wildlife Hazard Management Plan**

The FAA and other federal agencies are actively involved in studying and developing safety regulations pertaining to aircraft “wildlife strikes.” This effort also includes the study of certain land uses that have the potential to attract potentially “hazardous wildlife” on or near to public use airports. The hazardous wildlife classification mostly relates to birds, deer and coyotes (City of Pleasanton 2012a).

In conjunction with federal efforts, the administrators of public airports located close to large areas of open space, water, storm water detention/retention basins, waste disposal operations, wastewater treatment plants, wetlands, agriculture, surface mining, and other potential habitat areas are preparing and implementing Wildlife Hazard Management Plans intended to address wildlife strike issues. Since the Livermore Airport is located close to the Chain of Lakes, arroyos, significant open space lands, golf courses, surface mining, planned detention/retention basins, etc. that serve as wildlife habitat, the FAA requested that the City of Livermore prepare a Wildlife Hazard Management Plan. The results of the Wildlife Hazard Management Plan may ultimately have some impact on the planning of open space areas within the Plan Area and may require coordination (City of Pleasanton 2012a).

#### **Existing Surface Mining Permits**

Previous mining and reclamation operations within the Plan Area were permitted by and subject to various conditions of Alameda County Surface Mining Permits. These permits have been in effect and subject to periodic updates for many years. Permits covered the land areas now occupied by Cope Lake, Lake H and Lake I, as well as large areas of vacant/reclaimed land located to the immediate south and east of the Pleasanton Operations Service Center (City of Pleasanton 2012a).

The County has indicated that only a limited amount of near-term reclamation work remains within the Plan Area. This work is outlined below:

- Completion of the required construction of a diversion structure between the Arroyo Mocho and Lake H, or provide adequate funding to Zone 7 to complete the diversion structure at a later time
- Dedication of Lake H fee title to Zone 7
- Certification of the repairs that were previously completed to the lakes
- Ripping of the nonessential quarry truck haul roads to loosen/remove compacted soil

- Re-vegetation where necessary with appropriate seed
- Confirmation that revegetation has occurred and backfilled soil has settled appropriately.

Upon completion of the above work, the County will submit a letter of recommendation to the State pertaining to the certification of final reclamation. Once certification is granted, existing permits will no longer have any relevance to the Plan Area (City of Pleasanton 2012a).

### **Easements**

The Plan Area contains multiple easements, most of which are present for the purpose of accommodating utilities, storm water drainage, water lines, and vehicular access roads and bridges (City of Pleasanton 2012b).

## **3.9.3 - Regulatory Framework**

### **State**

#### **State Aeronautics Act**

The State Aeronautics Act requires the preparation and implementation of Airport Land Use Compatibility Plans (ALUCP) for nearly all public airports in the State. ALUCPs are intended to ensure that incompatible development does not occur on land surrounding airports. To accomplish this, the Act established Airport Land Use Commissions in counties having public use airports. The commissions are charged with developing, updating and implementing ALUCPs. The Alameda County Airport Land Use Commission (ALUC) was created in 1971 and adopted the Alameda County ALUCP in 1977.

### **Local**

#### **Alameda County**

##### *Specific Plan for Livermore-Amador Valley Quarry Lands*

A specific plan for the Livermore-Amador Valley Quarry Lands, referred to here as the Quarry Lands Specific Plan, (including the Plan Area) was adopted by Alameda County in 1981. The Quarry Lands Specific Plan contains quarry operation phasing plans, a map showing useable land remaining after the reclamation of quarry pits, and a plan identifying future reclaimed land uses (such as the Chain of Lakes, recreational trails, and areas potentially supporting future development).

Over the passage of time, much of the Quarry Lands Specific Plan has been superseded by County General Plan updates, countywide citizen ballot measures, and the approval of other County planning documents and agreements. The Quarry Lands Specific Plan will continue to partially apply to the Plan Area until such time as the limited remaining reclamation tasks are completed and the land is annexed to the City of Pleasanton. At such time, the Quarry Lands Specific Plan will no longer have any relevance to the Plan Area.

##### *East Bay Regional Park District (EBRPD) Master Plan*

The East Bay Regional Park District (EBRPD) spans Alameda and Contra Costa counties with over 112,000 acres in 65 parks including more than 1,200 miles of hiking, biking, horseback riding, and nature study trails. The EBRPD Master Plan defines the vision and the mission of the East Bay Regional Park District and sets priorities for the future (EBRPD 2012a). EBRPD Master Plan Map indicates that the Chain of Lakes area is proposed to be removed as potential EBRPD parklands (EBRPD 2012b).



*Alameda County Local Agency Formation Commission (LAFCo)*

LAFCo is a state-mandated local agency that oversees boundary changes to cities and special districts, the formation of new agencies including the incorporation of new cities, and the consolidation of existing agencies. The following land use policies from the Alameda County LAFCo Guidelines, Policies, and Procedures are applicable:

- **Policy 3.1:** LAFCo discourages boundaries that are inconsistent with other agency boundaries, overlap, or possess other characteristics that cause higher service costs to the taxpayer or confusion regarding service area boundaries.
- **Policy 3.3:** LAFCo shall modify, condition or disapprove proposals creating boundaries that are not definite and certain or do not conform to lines of assessment or ownership (§56668).
- **Policy 3.4:** Lands to be annexed that are within an adopted sphere of influence, shall be physically contiguous to present agency boundaries unless one of the following conditions exists:
  - Existing developed areas where it can be clearly found that interests of public health, safety, and welfare would best be served by the addition of the service, or which present clear or present health or safety hazards that could be mitigated by the requested change of organization;
  - Existing developed areas where agency facilities are present and sufficient for service and where the Commission determines that the annexation does not represent a growth-inducing factor for the area; or
  - Lands that are owned by the city and are being used for municipal purposes at the time Commission proceedings are initiated, and do not exceed 300 acres in area. If the city sells noncontiguous territory or leases it for development of shopping, hotel, motel or other lodging purposes, noncontiguous territory shall be automatically detached (§56375(d), (§56742).
- **Policy 3.5:** Islands, peninsulas, flags, pinpoint contiguity, cherry stems and other irregular boundary lines are inconsistent with the formation of orderly and logical boundaries and shall be disapproved or strongly discouraged (§56741, §56742, §56744, §56746).
- **Policy 3.6:** Strip annexations and leapfrog annexations are generally prohibited.
- **Policy 3.7:** Resulting boundary lines should not be irregular, such as the centerline of a road of irregular width or a line drawn parallel to the center of a creek.
- **Policy 3.8:** Resulting boundary lines should not divide jurisdiction or responsibility for maintenance within a road right-of-way.
- **Policy 3.9:** Resulting boundary configurations should not produce areas that are difficult to serve (§56668, §56001).
- **Policy 4.1:** LAFCo's decisions will reflect its legislated responsibility to work to maximize the retention of prime agricultural and important open space land while facilitating the logical and orderly expansion of urban areas (§56001).
- **Policy 4.3:** LAFCo shall discourage proposals that encourage or support urbanization outside of cities unless adverse public health and safety impacts would occur, and there is no feasible proposal alternative.
- **Policy 4.4:** LAFCo shall discourage city annexations of prime agricultural or important open space areas if such areas are not needed for urbanization within five years.

- **Policy 4.5:** LAFCo shall discourage Alameda County from extending urban services to areas (1) not designated or needed for urban development within five years or (2) designated for long term agricultural and open space uses in regional or city planning documents (§56434).
- **Policy 4.11:** LAFCo shall adopt appropriate terms or conditions retaining previous conditions of approval, such as Use Permit conditions, or other mechanisms adopted by an entity-losing jurisdiction over a territory when those conditions were adopted to conserve important agricultural, open space or natural resources, and cannot otherwise be ensured.

#### *Livermore Airport Land Use Compatibility Plan*

The State Aeronautics Act requires the preparation and implementation of Airport Land Use Compatibility Plans (ALUCP) for nearly all public airports in the State. ALUCPs are intended to ensure that incompatible development does not occur on land surrounding airports. To accomplish this, the Act established Airport Land Use Commissions in counties having public use airports. The commissions are charged with developing, updating and implementing ALUCPs (City of Pleasanton 2012b).

The Alameda County Airport Land Use Commission (ALUC) was created in 1971 and adopted the Alameda County ALUCP in 1977. The most recent update ALUCP for the Livermore Airport was completed in August 2012.

#### **City of Pleasanton**

##### *General Plan*

The City of Pleasanton General Plan, adopted July 21, 2009, provides a blueprint for anticipated growth and the conservation of resources. The Pleasanton General Plan is the official document used by decision makers and citizens to guide the community's long-range development of land and conservation of resources. The Plan contains a land use map, policies, and supporting information adequate for making informed decisions concerning the community's future. The General Plan contains 13 topical elements: Land Use, Circulation, Housing, Public Safety, Public Facilities and Community Programs, Conservation and Open Space, Water, Air Quality, Energy, Noise, Community Character, Economic and Fiscal, and Subregional Planning. Each element establishes goals, policies and programs to guide future land use activities and development within the City limits.

The General Plan's Land Use Element also sets forth the following policies and programs that pertain to the East Pleasanton Specific Plan:

- **Policy 6:** Develop comprehensive planning documents for undeveloped and underutilized areas of Pleasanton that are changing or have the potential to change. In the planning process, identify facility needs, explore opportunities for mixed-use development, and plan for a comprehensive circulation system.
  - **Program 6.1:** Prepare a Specific Plan for East Pleasanton as a coordinated effort between property owners, major stakeholders, and the Pleasanton community, including residents of East Pleasanton. Although the General Plan Map indicates several types of land use that may be considered in the specific planning process, this General Plan confers no entitlement to any future development of land in East Pleasanton.
  - **Program 22.2:** Extend urban services only to areas within the Urban Growth Boundary, with the following possible exceptions for selected urban services: (1) areas beyond the boundary

where the public health and safety present overriding considerations; (2) as to water service, areas which are within the boundaries of the former Pleasanton County Township Water District and where the service extension is consistent with the 1967 Joint Powers Agreement between the City and the District; (3) on reclaimed land which is currently designated as Sand and Gravel Harvesting in East Pleasanton when the potential future use is non-urban.

- **Program 22.6:** Reevaluate Urban Growth Boundary locations in East Pleasanton at such time as comprehensive land use designation changes are considered for the reclaimed quarry lands.
- **Program 26.1:** Involve citizen committees in the formulation of City plans and programs such as the future specific plan for East Pleasanton and the comprehensive planned unit development amendment process for Hacienda Business Park.

#### *Pleasanton Municipal Code*

The Pleasanton Municipal Code sets forth regulations to ensure that development and land use activities protect and promote the health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the City. The Pleasanton Municipal Code consists of all ordinances adopted by the Pleasanton City Council.

### **3.9.4 - Methodology**

The potential impacts associated with land use compatibility were evaluated in accordance with the Pleasanton General Plan, the Livermore Municipal Airport ALUCP, the proposed Specific Plan, and relevant city, LAFCo, and county policies.

#### **Thresholds of Significance**

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, land use impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would:

- a) Physically divide an established community. (Refer to Section 7, Effects Found not to be Significant.)
- 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.
- c) Conflict with any applicable habitat conservation plan or natural communities conservation plan. (Refer to Section 7, Effects Found not to be Significant.)

### **3.9.5 - Project Impacts and Mitigation Measures**

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

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## General Plan Consistency

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**Impact LU-1: Development and land use activities contemplated by the Specific Plan would be consistent with applicable provisions of the City of Pleasanton General Plan adopted for the purpose of avoiding or mitigating an environmental effect.**

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### ***Impact Analysis***

This impact addresses the potential for the Specific Plan to conflict with the City of Pleasanton General Plan and compatibility of the Specific Plan's land uses to adjacent existing and future land uses.

The Specific Plan would serve as the primary regulatory guide for future development of the Plan Area, and would assist property owners, designers and builders in the preparation of Planned Unit Development plans consistent with the intentions of the City.

If adopted, the Specific Plan policies and standards would take precedence over the more generalized standards applied throughout the remainder of the City, and development projects consistent with Specific Plan policies, standards and guidelines would by definition be consistent with the City of Pleasanton General Plan.

The Specific Plan's consistency with the General Plan is assessed in three separate ways:

- Consistency with the General Plan's amendment criteria
- Consistency of the Specific Plan's proposed uses with the stated provisions of the General Plan
- Consistency with the UGB

### ***General Plan Amendment Criteria***

Implementation of the Specific Plan requires a General Plan Amendment to designate land uses for all parcels within the Specific Plan boundaries. Existing land use designations are shown in Exhibit 3.9-1, and the proposed designations are shown in Exhibit 2-4.

The proposed General Plan Amendment would be consistent with widely accepted planning principles of facilitating logical and orderly growth, ensuring compatibility with surrounding uses, and ensuring consistency with the goals and policies of the General Plan. Each of these planning principles is evaluated below.

#### ***Logical and Orderly Growth***

The Plan Area is within the City of Pleasanton's Sphere of Influence and is partially within and directly adjacent to the existing city limits. The Specific Plan identifies objectives, policies, and design standards to simplify the subsequent planning process and allow for more efficient and timely approvals of uses within the Plan Area. Adoption of the Specific Plan by the City establishes and defines the planning criteria that would be used to guide the subsequent Plan Area development. As such, the Specific Plan would facilitate logical and orderly growth.

#### ***Compatibility with Surrounding Land Uses***

The Plan Area is surrounded by a wide range of urban, industrial, undeveloped, and open space uses. The Specific Plan has been designed to be compatible with surrounding land uses and includes buffers and transition treatments where needed to protect future land uses from the effects of

existing industrial operations. Each proposed land use type and its compatibility with the surrounding existing and planned land uses is discussed below.

- **Residential:** Residential land uses are concentrated in the southwestern quadrant of the Plan Area, adjacent to existing residential development (Ironwood neighborhood) and existing and future residential development to the south across Stanley Boulevard. This area of the Specific Plan also contains the OSC and Pleasanton Transfer Station and Recycling Center.

As indicated in the Specific Plan, the eastern boundary of the OSC would be screened by the construction of a local street and landscape buffer that would extend the full length of the OSC. Similarly, local streets and landscaping buffers would fully surround the Pleasanton Transfer Station and Recycling Center. Private open space is also planned along Stanley Boulevard to provide a buffer to the UPRR rail line. Within the Plan Area, higher residential densities have been identified for areas primarily along El Charro Road, Busch Road, and the retail land use area to ensure internal compatibility. As indicated in the Specific Plan, development would fund additional fencing and signage along existing lakes to deter trespassing and ensure safety. As such, the proposed residential land uses would be consistent with existing and planned land uses.

- **Commercial:** The proposed commercial land uses include retail, campus office, and destination use. The campus office land use with retail overlay area north of Lake I is adjacent to existing residential land uses to the west, and Arroyo Mocho to the north. The retail overlay portion is located on the east portion of the campus office area away from the existing residential area to ensure compatibility. A campus office area is also proposed south of Lake I. These areas would allow for the potential of either a large-scale office park or a variety of office type uses designed in a campus-like setting. The designated areas for this land use type are close to both planned and existing residential use as well as planned public parks and open space areas, providing greater ease of access and enhancing compatibility between the existing and potential land uses. Having this type of commercial use close to residences would allow greater ease of access. Due to the nature of the campus office use, there would be compatibility between the existing and potential surrounding land uses.

The area planned for destination use would be located at the convergence of the three lakes. Therefore, this use would be close to the proposed open space areas, lakes, and public parks. Destination use could include a variety of potential uses such as restaurants, conference facilities, or a winery. Due to the nature of this land use, compatibility between planned surrounding land uses would be expected.

In summary, the planned commercial uses would be compatible with existing and proposed surrounding land uses as well as internally with other proposed land uses within the Plan Area.

- **Industrial:** Proposed industrial uses would be located in the southeast portion of the Plan Area. The industrial land use designation would allow for business parks, research and development, industrial/flex and distribution uses, as well as a possible future relocation site for the Pleasanton Transfer Station and Recycling Center. Existing mining operations are located directly east of the proposed industrial land use designation, outside of the Plan Area. Mining operations can cause noise and dust nuisance; however, the planned industrial uses

would be generally compatible with the adjacent mining land uses. The proposed industrial land use area would provide a significant buffer between the existing mining land uses to the east and the proposed residential land uses west of El Charro Road. Furthermore, as indicated in the Specific Plan, industrial development would be required to implement fencing and signage consistent with design guidelines along the property boundaries adjoining the mining operation to restrict access. In addition, the Specific Plan includes landscape buffers along the western and southern portions of the Industrial area. As such, proposed industrial land uses would be compatible with existing and proposed surrounding land uses both within and adjacent to the Plan Area.

- **Public Parks and Water Management/Habitat/Recreation:** Proposed public parks and open space are located at various locations throughout the Specific Plan Area. Public parks within the area would include passive and active recreation areas located east of El Charro Road adjacent to Cope Lake and along the south side of Lake I. In addition, the public park along the south side of Lake I includes an overlay for the alternative development of a school/neighborhood park. Private open space would be located throughout the residential southwest portion of the Specific Plan Area. The proposed public open space would be under Zone 7 ownership and, therefore, would surround each of the three existing lakes. The incorporation of parks and open space throughout the Plan Area would be compatible with both the surrounding land uses and provide buffers between existing and proposed land uses within and adjacent to the Plan Area. As such, the proposed public parks and open space land uses would be consistent with existing and proposed land uses.
- **Public and Institutional:** The City of Pleasanton Operations Service Center, designated Public and Institutional, would remain in its present location. As previously noted, future residential development along the eastern boundary of the OSC would be screened by the construction of a local street and landscape buffer that would extend the full length of the OSC's eastern property line, thereby reducing any potential land use incompatibilities. Because the OSC is surrounded by existing residential land uses to the north and west, it would be expected to be compatible with proposed residential land uses within the Plan Area.

#### *Consistency with Goals, Policies, and Programs of the General Plan*

As a direct extension of the General Plan, the Specific Plan has been designed in accordance with applicable goals, policies, and programs of the General Plan.

- Policy 6 of the General Plan's Land Use Element directs the City to prepare comprehensive planning documents for undeveloped and underutilized areas of Pleasanton that are changing or have the potential to change, and requires the identification of facility needs, opportunities for mixed-use development, and creation of a comprehensive circulation plan.
- Program 6.1 under Policy 6 specifically directs the preparation of a Specific Plan for the East Pleasanton area.

As required by Policy 6 and Program 6.1, facility needs have been planned for as outlined in Chapter 7, Infrastructure, of the Specific Plan and a comprehensive circulation plan has been devised and is outlined in Chapter 6 of the Specific Plan.

**Proposed Uses**

The Specific Plan proposes a diversity of land uses including residential, retail, campus office, industrial, destination use, public and institution, public park, and water management/habitat/ recreation.

The City’s General Plan provides guidance for the development of each specific land use based on allowable densities. As shown in Table 3.9-2, all planned land uses are within the General Plan’s allowable densities for development.

**Table 3.9-2: Proposed Land Use Densities for the East Pleasanton Specific Plan**

Land Use	Units	Floor Area square feet	Site Area square feet (acres)	Floor to Area Ratio (FAR) or Dwelling units/acre	General Plan Allowable Densities (FAR or du/acre)	Exceeds Allowable Density? (yes or no)
Residential	1,300	—	9,369,756 (215)	6.05 du/acre	0 to 8.0+ du/acre	No
Retail	—	91,000 <sup>1</sup>	304,920 (7)	0.30 FAR	≤ 0.6 FAR	No
Campus Office	—	442,000	1,045,000 (24)	0.42 FAR	≤ 0.6 FAR	No
Industrial	—	1,057,000 <sup>2</sup>	3,648,586 (84)	0.30 FAR	≤ 0.5 FAR	No
Destination Use	—	46,000	133,293 (3)	0.35 FAR	n/a	—
Public and Institutional	—	86,000 <sup>3</sup>	789,307 (18)	0.11 FAR	≥0.6 FAR <sup>4</sup>	No <sup>4</sup>
Public Park	—	—	2,328,717 (53) <sub>-</sub>	—	n/a	—
Water Management/ Habitat/Recreation (existing)	—	—	30,735,936 (706)	—	n/a	—

Notes:

- <sup>1</sup> The retail square footage is inclusive of 61,000 square feet of building space on 5 gross acres located in the Retail Overlay on the Campus Office land use north of Lake I. This would be dedicated to either retail or campus office, but not both. To provide for a conservative analysis, this EIR assumes the square footage and acreage would be dedicated to retail because it would have a greater land use intensity
- <sup>2</sup> Square footage for the Industrial land use type is inclusive of the 53,500 square feet of existing building space at the Pleasanton Transfer Station and Recycling Center, which may eventually be relocated within the Specific Plan Area.
- <sup>3</sup> The Public and Institutional land use type consists of the existing City of Pleasanton Operations Service Center site and the approximately 86,000 square feet of existing building space. The Operations Service Center would remain in its current location.
- <sup>4</sup> Higher FAR is allowed when density and traffic generation are minimal.

du = dwelling units

Source: City of Pleasanton 2013; FCS 2013.

Parks and open space do not have a defined density, but as specified in the General Plan, neighborhood, community, and regional parks are all permitted land uses and the General Plan indicates that a 38-acre community park is planned by the City within the Plan Area. The General Plan does not specify any maximum allotment of land that can be used for the creation of parks within the Plan Area. Therefore, the incorporation of parkland within the Plan Area would be compatible with the land uses provided by the General Plan provided the other project components are consistent with the allowable densities identified.

### **Urban Growth Boundary**

The Pleasanton UGB (Exhibit 3.9-4) runs in a north-south direction through the Plan Area. The UGB distinguishes areas generally suitable for urban development where urban public facilities and services are provided, from those areas not suitable for urban development.

The General Plan specifies that the City should reevaluate the UGB location in East Pleasanton at such time as comprehensive land use designation changes are considered for the reclaimed quarry lands. The Specific Plan proposes to locate several land uses beyond the UGB, including approximately 10 acres of residential uses, 3 acres of destination use, 22 acres of public park use, and 84 acres of industrial use.

Approval of the Specific Plan does not in and of itself move the UGB or entitle development outside of the UGB. Consistent with General Plan Land Use Program 22.6, the City Council will reevaluate the UGB in coordination with the Specific Plan, and will make a determination whether the proposed changes to the UGB will need to be amended by a vote of the people. If not, then the UGB adjustment would be subject to the discretion of the City Council.

Should the UGB adjustment need to be amended by vote and is not passed, development outside of the UGB would be limited to non-urban uses.

### **Summary**

In summary, the Specific Plan would be consistent with the General Plan because it provides for the logical and orderly growth of the Plan Area; it includes land uses that would be compatible with surrounding land uses; it is consistent with goals, policies, and programs of the General Plan including identified densities; and potential UGB adjustment. As such, impacts would be less than significant.

### **Level of Significance Before Mitigation**

Less than significant impact.

### **Mitigation Measures**

No mitigation is necessary.

### **Level of Significance After Mitigation**

Less than significant impact.





- Single Family Residential - 4 DU/AC
- Single Family Residential - 8 DU/AC
- Single Family Residential - 11 DU/AC
- Zone 7 Open Space
- Private Open Space
- City Parks
- Campus Office
- Retail Overlay
- Retail
- Industrial
- Public & Institutional
- Destination Use
- Trail
- \* Potential Public School/  
Park Site
- S Staging Area
- City of Pleasanton  
Urban Growth Boundary

NOTE: Trails are conceptual only. Those on Zone 7 property will be subject to Zone 7 review and approval.

Source: City of Pleasanton, 2013



## Exhibit 3.9-4 Urban Growth Boundary

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## Municipal Code Consistency

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**Impact LU-2: Development and land use activities contemplated by the Specific Plan would be consistent with the applicable provisions of the Pleasanton Municipal Code adopted for the purpose of avoiding or mitigating an environmental effect.**

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### ***Impact Analysis***

As part of the Specific Plan process, the Plan Area would be rezoned and pre-zoned prior to annexation and construction of any future development. All land within the Plan Area would be zoned as Planned Unit Development (PUD). PUD zoning is necessary in order to ensure that the goals, policies and programs of the General Plan and Specific Plan are effectively implemented, while accommodating innovative and special consideration for site-specific opportunities and constraints.

Anticipated future Plan Area PUD zoning districts include the following:

- PUD-LDR (Low Density Residential – less than 5.0 units per acre)
- PUD-MDR (Medium Density Residential – 5.1 to 8.0 units per acre)
- PUD-CR (Compact Residential – 8.1 to 11.0 units per acre)
- PUD-R (Retail)
- PUD-CO (Campus Office)
- PUD-I (Industrial)
- PUD-DU (Destination Use)
- PUD-PI (Public and Institutional)
- PUD-Z7 (Zone 7 Open Space)
- PUD-PP (Public Park)
- PUD-POS (Private Open Space)

As indicated in the Municipal Code Section 18.68.020, a PUD is intended to accomplish the following purposes:

- To encourage imagination and housing variety in the development of property of varying sizes and topography in order to avoid the monotony and often destructive characteristics of standard residential, commercial and industrial developments;
- To provide a development procedure which will insure that the desires of the developer and the community are understood and approved prior to commencement of construction;
- To insure that the goals and objectives of the city's general plan are promoted without the discouragement of innovation by application of restrictive developmental standards;
- To accommodate changing market conditions and community desires;
- To provide a mechanism whereby the city can designate parcels and areas requiring special consideration regarding the manner in which development occurs;
- To encourage the establishment of open areas in residential, commercial and industrial developments and provide a mechanism for insuring that said areas will be beautified and/or maintained.

Permitted uses within PUD zoning districts include any use that is compatible with the purposes of the PUD designation, the neighborhood and general vicinity of the Specific Plan Area, and in keeping with the protection of the public health, safety, and general welfare. Development proposed within the Specific Plan Area would undergo subsequent review by the City to ensure compatibility with applicable PUD designations as required by Section 18.68.110 of the Municipal Code. As indicated in Impact LU-1, the proposed land uses would be compatible with surrounding land uses, with the implementation of applicable Specific Plan policies and design requirements. Furthermore, implementation of environmental protection objectives included in Chapter 6 of the Specific Plan would ensure that the health, safety, and general welfare of residents and the environment would be maintained.

#### *Landscaping*

Section 18.68.060B of the Municipal Code indicates that landscaping within PUD designated areas shall include, but not be limited to, intensely planted and maintained areas. As shown in the Specific Plan's land use plan (the Base Plan) and indicated in the project description, significant areas of parks and open space would be developed and maintained throughout the Plan Area. Furthermore, design guidelines included in the Specific Plan describe specific landscaping requirements, ensuring the provision of intensely planted and maintained areas.

#### *Property Development Standards*

Section 18.68.060 of the Municipal Code indicates that the appropriate amounts of landscaping, natural open space, parking, signing, distances between buildings, front yards, and other development standards shall be determined by the Planning Commission and City Council at the time of consideration of the PUD development plan. The standards are required to be included as conditions to any approved PUD development plan.

The Specific Plan provides property development standards and design guidelines for each land use designation. Implementation of these land use standards and design guidelines as well as the required review of PUD development plans would ensure that future development complies with applicable property development standards.

#### *Maintenance*

Section 18.68.070 of the Municipal Code requires that final subdivision maps or parcel maps shall not be recorded until documents pertaining to the maintenance of natural open space areas, landscaped areas, and exterior recreational facilities located within the proposed development have been approved by the City. This requirement would be fulfilled during implementation of the PUD application and approval process for each proposed development within the Plan Area.

In summary, no zoning, development plan, subdivision, use permit, or other entitlement for use, and no public improvement would be authorized for construction within the Plan Area that is not in substantial conformance with the Specific Plan and the required PUD development plan. Approval and implementation of all PUD development plans would ensure that future development within the Plan Area would be consistent with the Municipal Code. As such, impacts would be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Consistency with LAFCo Policies**

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**Impact LU-3:           Development and land use activities contemplated by the Specific Plan would not conflict with any of the applicable policies established by the Alameda County Local Agency Formation Commission adopted for the purpose of avoiding or mitigating an environmental effect.**

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**Impact Analysis**

The proposed annexation of land would be consistent with the policies and guidelines set forth by LAFCo. The Specific Plan includes the annexation of approximately 849 acres into the City of Pleasanton (as shown in Exhibit 2-2). All areas proposed for annexation are included in the Pleasanton General Plan Planning Area and Pleasanton’s Sphere of Influence, and were identified in the General Plan update for future annexation into the city limits.

LAFCo policies discourage certain types of annexations, including those that would result in irregular boundaries, boundaries that divide jurisdictions, boundaries that would be difficult to serve, or those that provide strip or leapfrog annexations.

Development of the Plan Area would implement the goals of the City as already disclosed in prior planning documents including the General Plan. Annexation would reduce the existing irregularities in the boundary lines through the Plan Area, and would allow the Plan Area to be served efficiently as it develops. The Plan Area is adjacent to the current city boundary and would not create a leapfrog annexation.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

## Airport Land Use Compatibility

**Impact LU-4: Development and land use activities contemplated by the Specific Plan would not conflict with the policies of the Livermore Municipal Airport’s Land Use Compatibility Plan and the Livermore Municipal Airport Master Plan adopted for the purpose of avoiding or mitigating an environmental effect.**

### *Impact Analysis*

As discussed in Section 3.7, Hazards and Hazardous Materials, the entirety of the Plan Area is located within the Airport Influence Area (AIA) of Livermore Municipal Airport, specified by the Livermore Municipal Airport Master Plan. The Plan Area is also partially located within the Airport Protection Area (APA), which was established to prevent the encroachment of incompatible land uses near the vicinity of the Airport. The ALUCP provides Safety Zones that specify permissible, conditional, and prohibited land uses within the APA. The Specific Plan area falls within Safety Zones 4, 6, and 7, all of which have specific regulations for the types and densities of land uses (Exhibit 3.9-3).

Because of the regulations affecting the ALUCP Safety zones, the land uses provided within the Plan Area may potentially conflict depending on the nature of the land use and where they are placed within the Plan Area.

### *APA Compatibility*

The APA prohibits new residential land use designations and the intensification of existing residential use designations within its boundaries. The northeastern portion of the Plan Area, including the proposed Campus Office and Retail Overlay land use areas, the Destination Use land use area, and the potential Public School/Park site, is located within the APA, along with a portion of Lake I and Cope Lake, and all of Lake H. No residential land uses are proposed for this area. Therefore, the proposed Specific Plan land uses are compatible with the APA.

### *Zone 4 of the ALUCP*

Zone 4 prohibits schools, large day care centers, hospitals and nursing homes, indoor assemblies with 300 or more people, outdoor assemblies with 1,000 or more people, and golf courses. In addition, Zone 4 of the ALUCP identifies that any building more than three above ground stories is generally unacceptable.

The portion of the Plan Area within Zone 4 includes a portion of the campus office and retail overlay land uses, which are allowed in Zone 4. Furthermore, the Specific Plan limits building height within this area to three stories. Therefore, the proposed Specific Plan land uses would be compatible with Zone 4 requirements.

### *Zone 6 of the ALUCP*

Zone 6 allows residential uses, but prohibits indoor and outdoor assembly areas of 1,000 people or more, schools, and golf courses. Areas within Zone 6 within the Specific Plan include Lake H, portions of Cope Lake, and Lake I, as well as the proposed destination use and a portion of the campus office and retail overlay land use. None of these uses are prohibited within Zone 6. Therefore, the proposed Specific Plan land uses are compatible with Zone 6 requirements.

#### *Zone 7 of the ALUCP*

Zone 7 allows residential uses, and does not specify any prohibited uses. Therefore, the proposed Specific Plan land uses are compatible with Zone 7 requirement.

#### *Other Compatibility Considerations*

The ALUCP also discourages land uses and landscaping that attract wildlife (such as birds, deer, and coyotes) and hazards to flight, such as uses that create glare or plumes. The existing lakes within the Specific Plan Area may attract wildlife, especially waterfowl, which may conflict with airport operation. Under the Specific Plan, the existing lakes would be maintained so that any existing considerations with respect to wildlife would continue. However, the Base Plan would not be expected to contribute to or exacerbate this condition.

To ensure consistency with the ALUCP, the Specific Plan requires the following:

- Prior to City approval of PUD development plans for projects within the Specific Plan boundaries, plans shall be submitted to the Alameda County Airport Land Use Commission for review to ensure consistency with the Livermore Municipal Airport's Land Use Compatibility Plan.

In addition, as required by the ALUCP Section 3.3.4.6, and California State Statutes, Real Estate Disclosures are required for all land within the AIA.

With the implementation of this Specific Plan policy, proposed development within the Plan Area would not conflict with the policies of the Livermore Municipal Airport's Land Use Compatibility Plan and the Livermore Municipal Airport Master Plan. Impacts would be less than significant.

#### ***Level of Significance Before Mitigation***

Less than significant impact.

#### ***Mitigation Measures***

No mitigation is necessary.

#### ***Level of Significance After Mitigation***

Less than significant impact.

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## 3.10 - Mineral Resources

### 3.10.1 - Introduction

This section describes the existing mineral resource conditions and potential effects from the implementation of the Specific Plan within the Specific Plan Area. Descriptions in this section are based on site reconnaissance, review of the City of Pleasanton General Plan, the City of Pleasanton Municipal Code, information provided by the California Geological Survey, and the Cope Lake Improvements and Maintenance Initial Study/Mitigated Negative Declaration.

### 3.10.2 - Environmental Setting

#### Aggregate Mineral Resources

Construction aggregate is a leading non-fuel mineral commodity produced in California and in the nation. Total production of construction aggregate in 2011 was 120.5 million tons valued at 886 million dollars (California Geological Survey 2011).

#### Mineral Resource Designations

Mineral Resources are classified by the California Geological Survey, which implements the Surface Mining and Reclamation Act (SMARA) and its Mineral Land Classification Project. Classification is completed by the State Geologist in accordance with the State Mining and Geology Board's priority list, into Mineral Resource Zones (MRZs). Classification of these areas is based on geologic and economic factors without regard to existing land use and land ownership (California Divisions of Mines and Geology, Undated). There are six major MRZs described as follows:

- MRZ-1 - Area where geologic data indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2a - Area underlain by mineral deposits where geologic data show that significant measured or indicated resources are present. Land included in the MRZ- 2a category is of prime importance because it contains known economic mineral deposits.
- MRZ-2b - Area underlain by mineral deposits where geologic information indicates that significant inferred reserves or deposits that are presently sub-economic are present.
- MRZ-3a - Area containing known mineral deposits that may qualify as mineral resources. Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2a or MRZ-2b categories.
- MRZ-3b - Area containing inferred mineral deposits that may qualify as mineral resources. Land classified MRZ- 3b represents areas in geologic settings that appear to be favorable environments for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part of these areas into the MRZ-3a category or specific localities into the MRZ-2a or MRZ-2b categories.
- MRZ-4 - Area where geologic information does not rule out either the presence or absence of mineral resources.

## Project Site

### ***Mineral Resource Designations***

The Department of Conservation has classified much of the Amador-Livermore Valley as MRZ-2, an area of regional significance for sand and gravel resources, and has delineated some aggregate deposits in this valley as a Resource Sector (Sector A) in the South San Francisco Bay Production-Consumption Region. Such sectors are governed under the Surface Mining and Reclamation Act.

Much of Pleasanton is in the MRZ-1 category with no significant mineral deposits, although developed areas in southeastern Pleasanton and west of I-680 are classified as MRZ-3. A small area near the gravel pits in the eastern portion of the City is classified as MRZ-2, and is mined for aggregate material used for the production of cement, asphalt, plaster sand, and fill. The depth of the deposit ranges in thickness from 25 feet in the west to over 100 feet in the east.

### ***State Mineral Resource Designations***

The area between Pleasanton and Livermore is designated as an Aggregate Production area by the California Geological Survey's map entitled Aggregate Availability in California (California Geological Survey 2012). In addition, the Chain of Lakes is considered an "Area of Regional Significance" by the California Geological Survey. This designation indicates the presence of mineral deposits, for which extraction would be "judged to be of prime importance in meeting future needs for minerals in a particular region of the state within which the minerals are located and which, if prematurely developed for alternative incompatible land uses, could result in the premature loss of minerals that are of more than local significance" (California Mining and Geology Board 1999).

### ***Local Mineral Resource Designations***

The City of Pleasanton General Plan does not designate the Specific Plan Area for sand and gravel harvesting, but does identify approximately 1,750 acres east of the Specific Plan Area as regionally significant sand and gravel deposits appropriate for sand and gravel harvesting. The designated area is the largest single concentration of sand and gravel deposits in the Bay Area. According to the General Plan, more than half of the sand and gravel harvesting area has been or is in the process of being mined, with quarrying of the remainder expected to continue until about the year 2030.

The Livermore-Amador Valley Quarry Area Reclamation Specific Plan (Reclamation Specific Plan) regulates and guides sand and gravel extraction operations and reclamation efforts. The Reclamation Specific Plan—in combination with the state regional significance designation and the General Plan Sand and Gravel Harvesting designation—effectively protects the sand and gravel resources until quarry operators deplete construction-grade aggregate deposits within the Pleasanton Planning Area.

## **3.10.3 - Regulatory Framework**

### **State**

#### ***Surface Mining and Reclamation Act***

The SMARA was enacted in 1975 and mandates the California Department of Conservation, California Geological Survey (CGS) to identify and evaluate the mineral resources of the State,

including sources of construction aggregate. One of the purposes of this mandate, and of SMARA itself, is to protect significant mineral deposits from potential loss due to incompatible land uses. Based on State Mining and Geology Board guidelines, CGS is authorized to map regions within California to classify areas with significant aggregate resources. SMARA requires the preparation of an acceptable reclamation plan and financial assurances for all surface mining operations. Reclamation plans are developed to meet various performance standards for the protection of wildlife habitat, revegetation, recontouring, erosion control, and other environmental concerns, and to eliminate or reduce residual public health and safety hazards and minimize environmental effects.

## Local

### *City of Pleasanton*

#### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs related to mineral resources:

#### **Open Space and Conservation Element**

- **Goal 3:** Promote natural resource production in accordance with sensitive environmental management practices.
- **Policy 4:** Reserve all areas designated on the General Plan Map as Sand and Gravel Harvesting exclusively for the production of sand and gravel until such time as quarry operators have depleted the resources.
  - **Program 4.1:** Ensure that Sand and Gravel Harvesting areas are reclaimed and reused following the Specific Plan for the Livermore-Amador Valley Quarry Area Reclamation.
  - **Program 4.2:** Design natural open space areas adjacent to sand-and-gravel harvesting areas and Zone 7 water retention lakes to include a protective buffer zone, similar to that on the east side of Martin Avenue, particularly north of Mohr Avenue that are open to the public for recreational purposes.
  - **Program 4.3:** Incorporate waterfowl habitat into planning and reclaiming depleted sand and gravel quarry resources.
- **Goal 5:** Preserve and protect existing and proposed open space lands for public health and safety, recreational opportunities, natural resources (e.g., agriculture, sand, and gravel mining), sensitive viewsheds, and biological resources.

#### *Pleasanton Municipal Code*

The Pleasanton Municipal Code Title 18 establishes requirements related to the rock, sand and gravel extraction (Q) district. The purpose of the Q zoning designation is to:

- Protect the natural resources in the City and ensure that their utilization is not prejudiced by the intrusion of incompatible uses.
- Indicate clearly to all interested parties the portions of the City that have been designated for rock, sand and gravel extraction and processing subject to comply with the standards of this chapter;

- Protect properties and uses not in the Q district from nuisances incidental to extraction, processing and hauling rock, sand and gravel;
- Ensure that general reuse plans for sites used for rock, sand and gravel extraction and processing are maintained and effectuated.

### 3.10.4 - Methodology

FCS evaluated potential Base Plan impacts on mineral resources through the review of existing mineral resource designations and existing site conditions.

#### Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to mineral resources are significant environmental effects, the following questions are analyzed and evaluated. Would the Base Plan:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

### 3.10.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Known Mineral Resources

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**Impact MIN-1: Development and land use activities contemplated by the Specific Plan would not result in the loss of a known mineral resource that would be of value to the region and the residents of the state.**

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#### Impact Analysis

The Specific Plan Area is designated as an Aggregate Production area and an "Area of Regional Significance" by the California Geological Survey. However, extraction of mineral resources within the Specific Plan Area is complete, and much of the area is now used for water storage. Reclamation continues in accordance with the Livermore-Amador Valley Quarry Lands Specific Plan.

The Specific Plan Area no longer contains significant quantities of sand and gravel; thus, implementation of the East Pleasanton Specific Plan would not preclude any further mining activities within the Specific Plan boundaries. Impacts to mineral resources would be less than significant.

#### Level of Significance Before Mitigation

Less than significant impact.

### ***Mitigation Measures***

No mitigation is necessary.

### ***Level of Significance After Mitigation***

Less than significant impact.

### **Locally Important Mineral Resources**

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**Impact MIN-2:      Development and land use activities contemplated by the Specific Plan would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.**

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### ***Impact Analysis***

The Specific Plan Area no longer supports mining operations, and it is currently in the final stages of the reclamation process under the Livermore-Amador Valley Quarry Lands Specific Plan. Once reclaimed, the Livermore-Amador Valley Quarry Lands Specific Plan is no longer relevant for the Specific Plan Area.

The City of Pleasanton General Plan does not designate the Specific Plan Area for sand and gravel harvesting. Both the existing and previous General Plans identified the Plan Area for urban development and open space, and, as such, the urban uses contemplated by the Specific Plan are already envisioned in existing planning documents. Furthermore, development and land use activities contemplated by the Specific Plan would not interfere with ongoing mineral resource recovery near the Specific Plan Area. Implementation of Specific Plan policies and mitigation measures included in this document would ensure that new development would be compatible with existing mining operations outside the Specific Plan Area. Impacts would be less than significant.

### ***Level of Significance Before Mitigation***

Less than significant impact.

### ***Mitigation Measures***

No mitigation is necessary.

### ***Level of Significance After Mitigation***

Less than significant impact.

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## 3.11 - Noise

### 3.11.1 - Introduction

This section describes the existing noise setting and potential effects from the implementation of the Specific Plan within the Plan Area and its surroundings. Descriptions and analysis in this section are based on site reconnaissance and assessment by FirstCarbon Solutions (FCS), Extant Acoustical Consulting, and Kunzman Associates. Noise monitoring and modeling data is provided in Appendix F.

### 3.11.2 - Environmental Setting

#### Acoustic Fundamentals

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise; consequently, the perception of sound is subjective in nature, and can vary substantially from person to person.

A sound wave is initiated in a medium by a vibrating object (e.g., vocal chords, the string of a guitar, the diaphragm of a radio speaker). The wave consists of minute variations in pressure, oscillating above and below the ambient atmospheric pressure. The number of pressure variation cycles occurring per second is referred to as the frequency of the sound wave and is expressed in hertz (Hz), which is equivalent to one complete cycle per second.

Directly measuring sound pressure fluctuations would require the use of a very large and cumbersome range of numbers. To avoid this and have a more useable numbering system, the decibel (dB) scale was introduced. Sound level expressed in decibels (dB) is the logarithmic ratio of two like pressure quantities, with one pressure quantity being a reference sound pressure and the second pressure being that of the sound source of concern. For sound pressure in air, the standard reference quantity is generally considered to be 20 micropascals, which directly corresponds to the threshold of human hearing. The use of the decibel is a convenient way to handle the million-fold range of sound pressures to which the human ear is sensitive. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly added. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.

The loudness of sound perceived by the human ear depends primarily on the overall sound pressure level and frequency content of the sound source. The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. The standard weighting networks are identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels (dBA). For this reason, the dBA can be used to predict community response to noise from the environment, including noise from transportation and

stationary sources. Sound levels expressed as dB in this section are A-weighted sound levels, unless noted otherwise.

Noise can be generated by a number of sources, including mobile sources (transportation noise) such as automobiles, trucks, and airplanes and stationary sources (non-transportation noise) such as construction sites, machinery, and commercial and industrial operations. As acoustic energy spreads through the atmosphere from the source to the receiver, noise levels attenuate (decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers (e.g., walls, building façades, berms). Noise generated from mobile sources generally attenuate at a rate of 3dBA (typical for hard surfaces, such as asphalt) to 4.5 dBA (typical for soft surfaces, such as grasslands) per doubling of distance, depending on the intervening ground type. Stationary noise sources spread with more spherical dispersion patterns that attenuate at a rate of 6 to 7.5 dBA per doubling of distance for hard and soft sites, respectively.

Atmospheric conditions such as wind speed, turbulence, temperature gradients, and humidity may additionally alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a large object (e.g., barrier, topographic features, and intervening building façades) between the source and the receptor can provide significant attenuation of noise levels at the receiver. The amount of noise level reduction or “shielding” provided by a barrier primarily depends on the size of the barrier, the location of the barrier in relation to the source and receivers, and the frequency spectra of the noise. Natural barriers such as berms, hills, or dense woods, as well as man-made features such as buildings, berms, and walls may be effective barriers for the reduction of source noise levels.

### Noise Descriptors

The intensity of environmental noise levels can fluctuate greatly over time, and as such, several different descriptors of time-averaged noise levels may be used to provide the most effective means of expressing the noise levels. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment near the receptor(s). Noise descriptors most often used to describe environmental noise are defined below.

**$L_{max}$  (Maximum Noise Level):** The maximum instantaneous noise level during a specific period of time.

**$L_{min}$  (Minimum Noise Level):** The minimum instantaneous noise level during a specific period of time.

**$L_{eq}$  (Equivalent Noise Level):** The average noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the  $L_{eq}$ . In noise environments determined by major noise events, such as aircraft overflights, the  $L_{eq}$  value is heavily influenced by the magnitude and number of single events that produce the high noise levels.



**$L_{dn}$  (Day-Night Average Noise Level):** The 24-hour  $L_{eq}$  with a 10-dBA “penalty” for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m. In other words, 10 dBA is “added” to noise events that occur in the nighttime hours, and this generates a higher reported noise level when determining compliance with noise standards. The  $L_{dn}$  attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.

**CNEL (Community Noise Equivalent Level):** The CNEL is similar to the  $L_{dn}$  described above, but with an additional 5-dBA “penalty” added to noise events that occur during the noise-sensitive hours between 7 p.m. and 10 p.m., which are typically reserved for relaxation, conversation, reading and television. When the same 24-hour noise data are used, the reported CNEL is typically about 0.5 dBA higher than the  $L_{dn}$ .

Community noise is commonly described in terms of the ambient noise level which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent sound level ( $L_{eq}$ ) which corresponds to the steady-state A-weighted sound level containing the same total energy as the time-varying signal over a given time period (usually one hour). The  $L_{eq}$  is the foundation of the composite noise descriptors such as  $L_{dn}$  and CNEL, as defined above, and shows very good correlation with community response to noise. Use of these descriptors along with the maximum noise level occurring during a given time period provides a great deal of information about the ambient noise environment in an area.

### Traffic Noise Prediction

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of traffic noise levels, a doubling of the traffic volume (assuming that the speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the FHWA community noise assessment criteria, this change is “barely perceptible.” For reference, a doubling of perceived noise levels would require an increase of approximately 10 dBA. However, the 1992 findings of Federal Interagency Committee on Noise (FICON), which assessed changes in ambient noise levels resulting from aircraft operations, found that noise increases as low as 1.5 dB can cause annoyance, when the existing noise levels are already greater than 65 dB. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

### Noise Attenuation

Noise-related land use issues are typically composed of three basic elements: (1) the noise source, (2) a transmission path, and (3) a receiver. The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. When the potential for a noise-related problem is present, noise control techniques should be selected to provide an acceptable noise environment for the receiver while remaining consistent with local

aesthetic standards and practical structural and economic limits. Fundamental noise control options are described below.

### **Noise Barriers**

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. For a noise barrier to work, it must be high enough and long enough to block the view of a road. A noise barrier is most effective when placed close to the noise source or receiver. A noise barrier can achieve a 5-dBA noise level reduction when it is tall enough to break the line-of-sight. When the noise barrier is a berm instead of a wall, the noise attenuation can be increased by another 3 dBA.

### **Setbacks**

Noise exposure may be reduced by increasing the setback distance between the noise source and the receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, and storage yards. The available noise attenuation from this technique is limited by the characteristics of the noise source, but generally ranges between 4 and 6 dBA.

### **Site Design**

Buildings can be placed on a property to shield other structures or areas from areas affected by noise, and to prevent an increase in noise levels caused by reflections. The use of one building to shield another can significantly reduce overall noise control costs, particularly if the shielding structure is insensitive to noise.

Site design should guard against creating reflecting surfaces that may increase onsite noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dBA. The open end of U-shaped buildings should point away from noise sources for the same reason. Landscaping walls or noise barriers located within a development may inadvertently reflect noise back to a noise-sensitive area unless located carefully.

### **Building Facades**

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through acoustical design of building facades. Standard construction practices provide a noise reduction of 10 to 15 dBA for building facades with open windows, and a noise reduction of approximately 25 dBA when windows are closed (Table 3.11-1). An exterior-to-interior noise reduction of 25 dBA can be obtained by requiring that building design include adequate ventilation systems, which allows windows facing a noise source to remain closed, even during periods of excessively warm weather.

**Table 3.11-1: Noise Reduction Afforded by Common Building Construction**

Construction Type	Typical Occupancy	General Description	Range of Noise Reduction (dB)*
1	Residential, Commercial, Schools	Wood frame, stucco, or wood sheathing exterior. Interior drywall or plaster. Sliding glass windows, with windows partially open.	15-20
2	Same as 1 above	Same as 1 above, but with windows closed.	25-30
3	Commercial, Schools	Same as 1 above, but with fixed ¼-inch plate glass windows.	30-35
4	Commercial, Industrial	Steel or concrete frame, curtain wall, or masonry exterior wall. Fixed ¼-inch plate glass windows.	30-40

Note:  
 \* Range depends on the amount windows are open, degree of window seal, and glass area of windows.  
 Source: Caltrans 2002: 7-37.

Where greater noise reduction is required, acoustical treatment of the building facade may be necessary. Reducing relative window area is the most effective control technique, followed by providing acoustical glazing (e.g., thicker glass or increased air space between panes) within frames with low air infiltration rates, using fixed (i.e., non-movable) acoustical glazing, or eliminating windows altogether. Noise transmitted through walls can be reduced by increasing wall mass (e.g., using stucco or brick in lieu of wood siding) or isolating wall members by using double or staggered stud walls, while noise transmitted through doorways can be lessened by reducing door area, using solid-core doors, or sealing door perimeters with suitable gaskets. Noise-reducing roof treatments include using plywood sheathing under roofing materials.

**Landscaping**

While the use of trees and other vegetation is often thought to provide significant noise attenuation, approximately 100 feet of dense foliage—with no visual path extending through the foliage—is required to achieve a 5-dBA attenuation of traffic noise. Thus, the use of vegetation as a noise barrier is not considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used, however, to acoustically “soften” intervening ground between a noise source and a receiver, increasing ground absorption of sound, and thus, increasing the attenuation of sound with distance. Planting trees and shrubs also offers aesthetic and psychological value, and it may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels would be largely unaffected.

## Negative Effects of Noise on Humans

Excessive and chronic exposure to elevated noise levels can result in auditory and non-auditory effects on humans. Auditory effects of noise on people are those related to temporary or permanent hearing loss caused by loud noises. Non-auditory effects of exposure to elevated noise levels are those related to behavioral and physiological effects. The non-auditory behavioral effects of noise on humans are associated primarily with the subjective effects of annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning. The non-auditory physiological health effects of noise on humans have been the subject of considerable research attempting to discover correlations between exposure to elevated noise levels and health problems, such as hypertension and cardiovascular disease. The mass of research infers that noise-related health issues are predominantly the result of behavioral stressors and not a direct noise-induced response. The extent to which noise contributes to non-auditory health effects remains a subject of considerable research, with no definitive conclusions.

The degree to which noise results in annoyance and interference is highly subjective and may be influenced by several non-acoustic factors. The number and effect of these non-acoustic environmental and physical factors vary depending on individual characteristics of the noise environment such as sensitivity, level of activity, location, time of day, and length of exposure. One key aspect in the prediction of human response to new noise environments is the individual level of adaptation to an existing noise environment. The greater the change in the noise levels that are attributed to a new noise source, relative to the environment an individual has become accustomed to, the less tolerable the new noise source will be to an individual.

With respect to how humans perceive and react to changes in noise levels, a 1-dBA increase is generally imperceptible outside of a laboratory environment, a 3-dBA increase is barely perceptible, a 6-dBA increase is clearly noticeable, and a 10-dBA increase is subjectively perceived as approximately twice as loud (Egan 1988). These subjective reactions to changes in noise levels was developed on the basis of test subjects' reactions to changes in the levels of steady-state, pure tones or broad-band noise and to changes in levels of a given noise source. Perception and reaction to changes in noise levels in this manner is thought to be most applicable in the range of 50 to 70 dBA, as this is the usual range of voice and interior noise levels.

## Groundborne Vibration Fundamentals

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. Groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

### *Vibration Descriptors*

Several different methods are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or

the root mean square (RMS) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as LV and is based on the RMS velocity amplitude. A commonly used abbreviation is VdB, which in this text, is when vibration level (LV) is based on the reference quantity of 1 microinch per second.

**Vibration Perception**

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. Offsite sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads. Smooth, well-maintained roads rarely produce perceptible groundborne noise or vibration. Acceptable vibration levels for an office environment would be 84 VdB, while acceptable levels for residential uses would be 78 VdB (Federal Transportation Administration 2006). Caltrans guidelines recommend that a standard of 0.2 in/sec PPV not be exceeded for the protection of normal residential buildings and that 0.08 in/sec PPV not be exceeded for the protection of old or historically significant structures (Caltrans 2004).

**Vibration Propagation**

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform median, while groundborne vibrations travel through the earth, which may contain significant geological differences. As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source.

**Construction-Related Vibration Level Prediction**

Construction activity may result in varying degrees of ground vibration, depending on the specific type of equipment used on the construction site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results, ranging from no perceptible effects at the low levels to slight damage at the highest levels. According to the Federal Transit Administration (FTA), buildings extremely susceptible to vibration damage (such as old, historic buildings) should not be exposed to vibration levels greater than 0.12 PPV (in/sec), non-engineered timber and masonry buildings can withstand vibration levels up to 0.2 PPV (in/sec). Table 3.11-2 shows approximate vibration levels for different construction activity. The data in Table 3.11-2 shows a reasonable estimate for a wide range of soil conditions.

**Table 3.11-2: Vibration Source Levels for Construction Equipment**

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level (LV) 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

**Table 3.11 2 (cont.): Vibration Source Levels for Construction Equipment**

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level (LV) at 25 feet
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	0.008 in soil 0.017 in rock	66 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: FTA, 2006.		

### Existing Noise Environment

The Plan Area encompasses 1,110 acres at the eastern-most edge of the City, situated partially within the city limits but mostly within the unincorporated jurisdiction of Alameda County. A variety of land uses surround the Plan Area and generally include residential, park, school, and undeveloped lands to the north; surface mining, a golf course, and the Livermore Municipal Airport to the east; the Union Pacific Railroad tracks, Stanley Boulevard, and Shadow Cliffs Regional Recreation Area to the south; and existing residential development and Valley Avenue to the west.

The Plan Area is characterized by disturbed lands that have been reclaimed after surface mining activities and are now undeveloped or used for water storage. Water storage areas consist of three man-made lakes—Cope Lake, Lake H, and Lake I—encompassing approximately 704 acres of the Plan Area. Limited existing development within the Plan Area consists of the Pleasanton Transfer Station and Recycling Center, the City of Pleasanton Operations Service Center (OSC), and limited small office buildings, sheds, and warehousing space.

The Plan Area is heavily influenced by noise from train operations (i.e., from Union Pacific Railroad [UPRR]) to the south, aggregate mining to the east, the Pleasanton Transfer Station and Recycling Center, the activity at the OSC, and the Livermore Municipal Airport to the northeast.

### Existing Noise Sensitive Land Uses

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects, as well as uses where quiet is an essential element of the intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. No existing residential land uses are located within the Plan Area.

The residential land uses closest to proposed development within the Plan Area are located to the west, in the Ironwood, and Stoneridge Square neighborhoods. Homes in the Ironwood neighborhood, on the east side of Chatham Place, are located at the Plan Area boundary, and directly north of the OSC. Adjacent land uses proposed in the Specific Plan’s Base Plan would be residential. In the Stoneridge Square neighborhood, directly north of Lake I, the homes along the east side of Chocolate Street are located at the Plan Area boundary. Adjacent land uses in the Specific Plan’s Base Plan at this location would be designated as campus office.

**Existing Noise Measurements**

Short-term and long-term noise measurements were taken within the Plan Area to ascertain the existing noise environment. Short-term noise readings were taken for a duration of 15 minutes, long-term noise readings were taken over a duration of 24 hours. The sites for the noise monitoring locations are shown in Exhibit 3.11-1. Monitoring results are provided in Table 3.11-3 through Table 3.11-5. Appendix F includes the monitoring data. The field surveys noted that noise within the Plan Area is generally characterized by traffic noise, construction noise, aircraft overflights, rail noise (UPRR) and various stationary noise sources (Pleasanton Transfer Station and Recycling Center, City of Pleasanton Operations Service Center [OSC], firing range, etc.). The highest noise levels were produced by passing vehicles and aircraft overflights.

*Existing Noise Measurement and Analysis Results*

The first set of noise measurements were taken at six locations within the Plan Area on Wednesday, October 10, 2012 and were recorded between 11:29 a.m. and 2:02 p.m. At the start of the noise monitoring, temperature was 67 degrees Fahrenheit (°F) with light wind conditions (2 miles per hour [mph]) and hazy skies. The results of these noise level measurements are provided in Table 3.11-3.

**Table 3.11-3: Existing Short-Term Noise Level Measurements**

Site Location	Description	L <sub>eq</sub>	L <sub>MAX</sub>	L <sub>MIN</sub>
Site 1	Located southeast on project site, area consisted of light vegetation, just off dirt road (20 feet south of road), north of Vulcan Materials. In the area, heavy equipment (bulldozers), were being used.	52.0	61.5	46.9
Site 2	Located South of Pleasanton Gravel Company, west of Cope Lake. In dirt area south of road. Vegetation in area consisted of smaller plants, dispersed out unevenly in various patches.	56.9	73.4	38.0
Site 3	Located in bend, northeast of project site, along El Charro Road. South of residence. On west side of Roadway, about 15 feet of road in dirt. Road used for transportation of materials, a lot of heavy truck traffic. Near airfield, several small single aircraft flew, helicopter, and a blimp during duration of reading.	72.5	88.1	40.5

**Table 3.11 3 (cont.): Existing Short-Term Noise Level Measurements**

Site Location	Description	L <sub>eq</sub>	L <sub>MAX</sub>	L <sub>MIN</sub>
Site 4	Located along Busch Road, north of Pleasanton Transfer Station and Recycling Center. 20 feet north of roadway, located in dense shrubs adjacent to the project site.	59.8	74.2	43.3
Site 5	Located in trail/nature area along East side of Martin Avenue. 15 feet west, outside project sites chain link fence. West of Zone 7 Lake I. Many shrubs, small vegetation and few trees in area. Planes from airfield flew overhead.	55.5	79.7	38.0
Site 6	Located in residential community north of Lake I, west of Legacy Partners. On Persimmon Way, on shoulder of street. Project site and community were separated by a fence and embankment around 20 feet high blocking project site.	45.9	72.4	37.8

Source: FCS, 2013.

Additional short-term noise measurements were taken on November 26, 2013 between 4:20 p.m. and 5:38 p.m. at three locations at the project site. The temperature ranged from 60 to 66 °F, wind conditions ranged from 0 to 3 mph, and skies were cloudy. The results of the noise level measurements are provided below in Table 3.11-4.

**Table 3.11-4: Additional Short-Term Noise Level Measurements**

Site No.	Site Description	L <sub>eq</sub> /L <sub>dn</sub>	L <sub>max</sub>	L <sub>min</sub>
ST-01	Located north of Boulder Street, approximately 180 feet northeast of the centerline of Valley Ave and approximately 472 feet northwest of U-Store-It self-storage facility. Sources of noise include traffic noise from Valley Ave and train noise from the UPRR.	57.1	66.5	49.5
ST-02	Located approximately 253 feet north of Stanley Boulevard, approximately 52 feet north of the UPRR track and approximately 0.3 miles east of Valley Avenue. The UPRR tracks and a berm were in-between the site and the road. Sources of noise mainly from traffic along Stanley Blvd.	59.1	71.3	49.6
ST-03	Located approximately 210 feet west of the Cemex Plant, 427 feet north of the UPRR corridor, and 640 feet north of Stanley Blvd. Sources of noise include traffic noise from Stanley Blvd, back-up alarms at Cemex, propeller aircraft overflights, train horn and noise from Amtrak push-pull of three cars.	58.0	77.0	46.4

Source: Extant Acoustical Consulting, 2013.





**Legend**

- East Pleasanton Specific Plan Area
- Noise Monitoring Locations

**Additional Noise Monitoring Locations**

- ⊗ Long-Term Monitoring
- ▲ Short-Term Monitoring

Source: ESRI Aerial Imagery. FirstCarbon Solutions Field Survey Data, 2012. Extant Acoustical Consulting, 2013.



## Exhibit 3.11-1 Noise Monitoring Locations

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Long-term (24-hour) noise measurements were taken from November 25th to 27th, 2013 at five locations at the project site. The temperature ranged from 58 to 71°F, wind conditions ranged from 0 to 3 mph, with mostly clear to partly cloudy skies. The results of the noise level measurements are provided in Table 3.11-5.

**Table 3.11-5: Long-Term Noise Level Measurements**

Site No.	Site Description	Average $L_{eq}$ / Calculated $L_{dn}$	Daytime (7 am to 10 pm) $L_{max}$	Nighttime (10 pm to 7 am) $L_{max}$
LT-01	Located approximately 0.32 mile north of the UPRR Railroad, 0.35 mile north of Stanley Blvd, and 444 feet northwest of the area of activity at the Cemex Plant. Primary sources of noise are the back-up alarms and heavy equipment operation at Cemex. Train-related noise and Stanley Blvd traffic noise is audible in the distance.	49.3/54.0	74.7	70.4
LT-02	Located on the northern portion of the site, approximately 58 feet southwest of the El Charro gate, 1,443 feet east of the residential uses east of Chocolate Street. Primary sources of noise are the heavy trucks at the concrete plant, aircraft from Livermore airport, traffic on El Charro (approximately 265 feet to the east), and the opening and closing of the El Charro gate.	54.9/59.1	83.1	73.2
LT-03	Located approximately 278 feet north of Stanley Boulevard, approximately 82 feet north of the UPRR track and approximately 525 feet southeast of activity at the Pleasanton Transfer Station and Recycling Center. Main sources of noise include traffic noise from Stanley Blvd, UPRR rail activities, remediation/excavation activities to the west/north, and excavators loading material into dump trucks.	62.2/65.8	93.6	91.1
LT-04	Located approximately 180 feet northeast of Valley Ave and 471 feet north of Boulder St. Sources of noise include Busch Rd traffic, Valley Ave traffic, Stanley Blvd traffic, aircraft flyovers, and commercial operations across from Valley Ave.	57.5/62.1	81.0	71.2

**Table 3.11-5 (cont.): Long-Term Noise Level Measurements**

Site No.	Site Description	Average $L_{eq}$ / Calculated $L_{dn}$	Daytime (7 am to 10 pm) $L_{max}$	Nighttime (10 pm to 7 am) $L_{max}$
LT-05	Located approximately 348 feet north of Busch Rd, 220 feet east of the Pleasanton Operations Service Center (OSC), 167 feet northwest of a warehouse on the western side of a construction access road, and approximately 262 feet northeast of the firing range. Sources of noise include traffic from Busch Rd, the OSC, the OSC's firing range, the Pleasanton Transfer Station and Recycling Center, and aircraft overflights.	55.3/57.6	85.4	78.8
Source: Extant Acoustical Consulting, 2013.				

**Roadway Noise**

In the Plan Area's vicinity, areas that experience sound levels greater than 60 dBA  $L_{dn}$  are typically near major vehicular traffic corridors. Noise generated by streets and highways is dependent on several variables, including the number of vehicles, vehicle mix (percent trucks versus private automobile), and average vehicle speeds. Noise effects along streets and highways are often mitigated using noise attenuation barriers, such as sound walls or earth berms, or by depressing segments of the route.

Roadways adjacent to the Plan Area, together with details on the distances to the 60, 65, and 70 dBA  $L_{dn}$  noise contours (as shown in Table 11-3 in the Pleasanton General Plan) are listed in Table 3.11-6.

**Table 3.11-6: Noise Contours**

Roadway Segment	PM Peak-Hour Traffic Volumes	Distance to Noise Contour from Roadway Centerline (feet)		
		70 dBA $L_{dn}$	65 dBA $L_{dn}$	60 dBA $L_{dn}$
<b>Stanley Boulevard</b>				
e/o Valley Avenue	5,000	260	560	1,210
Stoneridge Drive				
e/o Santa Rita Road	3,500	70	140	300
<b>Busch Road</b>				
e/o Valley Avenue	2,100	—	60	140
<b>El Charro Road</b>				
n/o Stanley Boulevard	2,800	—	80	160
Notes: e/o = east of; n/o = north of Source: City of Pleasanton 2009.				

### **Railroad Noise**

The UPRR tracks run along the north side of Stanley Boulevard, directly south of the Plan Area. Noise exposure levels in this portion of the Plan Area are in the range of 71.3 to 93.6 dBA  $L_{max}$ . Current freight rail operations average 11 to 13 trains throughout each 24-hour day. In addition, the Altamont Commuter Express (ACE) operates four trains daily (eight trips through Pleasanton) along the UPRR. As shown in Table 3.11-4, at Site ST-02, the average noise level at a distance of 52 feet from the UPRR track was 59.1 dBA. The 24-hour noise reading (see Table 3.11-5) at LT-03 showed the calculated noise level at a distance of 82 feet north of the UPRR track was 65.8 dBA  $L_{dn}$ . However, much of the noise at this location was sourced from Stanley Boulevard. Noise exposure from warning horns at grade crossing may be as high as 105 dB  $L_{max}$  at receivers within 100 feet.

Groundborne vibration from passing trains could potentially affect any housing areas proposed directly adjacent to the UPRR tracks. Vibration levels associated with train events should comply with the applicable FTA/Federal Railroad Administration (FRA) criteria.

### **Aircraft Noise**

Livermore Municipal Airport is located approximately 1.5 miles east of the closest developable portion of the Specific Plan area. As shown on Exhibit 3.11-2, the 60 dBA airport noise contour crosses the northeastern part of the Plan Area. At the closest developable site within the Plan Area, aircraft-related noise exposure would be expected to be approximately 60 dBA  $L_{dn}$  or less (see Table 3.11-5). Individual aircraft operations associated with Livermore Municipal Airport would be audible within the Plan Area. As shown by the onsite ambient readings for Site 3 (see Table 3.11-3), the noise from individual aircraft is generally overshadowed by the noise from traffic along El Charro Road. The noise reading at Site 5 shows that aircraft overflight can produce single event noise levels up to 79.7 dBA  $L_{max}$ . However, as shown from the long-term readings in Table 3.11-5, when averaged out over 24 hours (for CNEL or  $L_{dn}$  values), the average noise levels would be around 59 dBA, which are consistent with the findings of the General Plan airport noise contours map.

### **Stationary Noise Sources**

Stationary noise sources within and near the Plan Area include quarrying activities conducted by the Pleasanton Gravel Company, the Pleasanton Transfer Station and Recycling Center, and the OSC. Ambient noise readings within the vicinity of stationary noise sources (see Table 3.11-3 through Table 3.11-5) show that maximum noise levels can be as high as 88.1 dBA  $L_{max}$  near the Pleasanton Gravel Company. Noise exposure from stationary sources are subject to the standards of the City of Pleasanton Municipal Code criteria including 60 dBA for residential, 70 dBA for commercial and 75dBA for industrial land uses.

## **3.11.3 - Regulatory Framework**

### **Federal**

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency limits noise exposure of workers to 90 dB  $L_{eq}$  or less for 8 continuous hours, or 105 dB  $L_{eq}$  or less for 1 continuous hour. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the FTA. Transit noise is regulated by the federal Urban Mass Transit Administration (UMTA), while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being sited adjacent to a highway or, alternately, that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

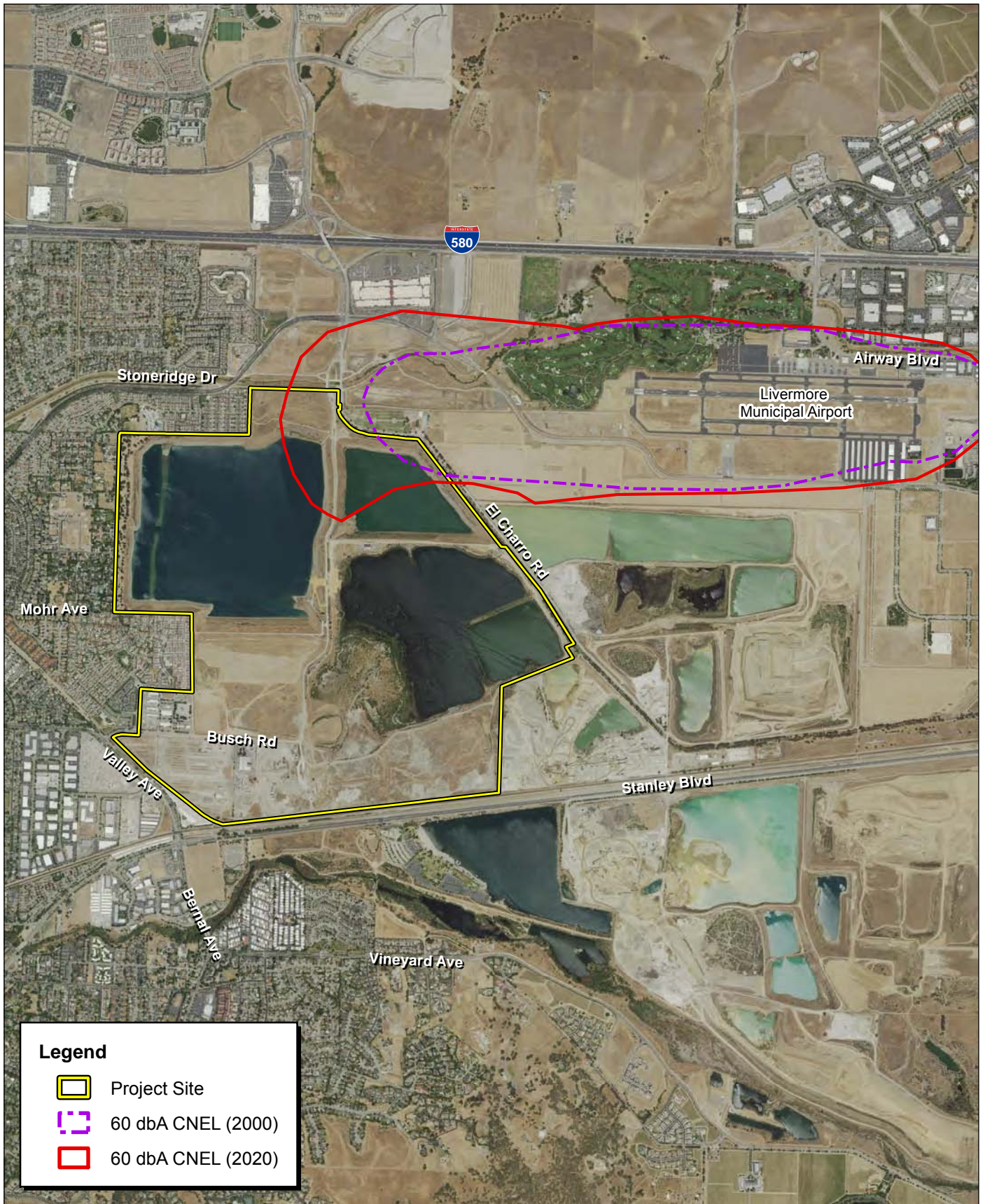
Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, local jurisdictions are limited to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

## State

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. The significant model used by the City of Pleasanton, which is shown in Exhibit 3.11-3, allows a local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new transient (e.g., hotels, motels) and multi-family dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship to have an interior CNEL of 45 dB or less due to aircraft noise.

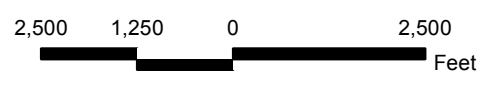
Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.



Source: ESRI World Imagery. Pleasanton General Plan 2009.

**Legend**

- Project Site
- 60 dbA CNEL (2000)
- 60 dbA CNEL (2020)



## Exhibit 3.11-2 Airport Noise Contours

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Land Use Category	Exterior Noise Exposure ( $L_{dn}$ )					
	55	60	65 <sup>b</sup>	70	75	80
Single-Family Residential <sup>a</sup>					Conditionally Acceptable	Unacceptable
Multi-Family Residential, Hotels, and Motels <sup>a</sup>				Conditionally Acceptable	Unacceptable	
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds				Conditionally Acceptable	Unacceptable	
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches			Conditionally Acceptable	Unacceptable		
Office Buildings, Business, Commercial, and Professional				Conditionally Acceptable	Unacceptable	
Auditoriums, Concert Halls, Amphitheaters	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable

a In noise environments resulting primarily from railroad trains, exterior noise levels up to 70 dBA Ldn are normally acceptable recognizing that day-night average noise levels are controlled by intermittent, loud events.

b <65 dBA outdoors = < 45 dBA indoors



**NORMALLY ACCEPTABLE**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements



**CONDITIONALLY ACCEPTABLE**

Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.



**UNACCEPTABLE**

New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Source: 2005 City of Pleasanton General Plan 2025.



Exhibit 3.11-3  
Noise and Land Use Compatibility Guidelines

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## Local

### **City of Pleasanton**

#### *General Plan*

The Pleasanton General Plan includes noise and land use compatibility guidelines as shown on Exhibit 3.11-3. The General Plan recommends use of these guidelines in conjunction with future noise-exposure levels to identify projects or activities that may require noise attenuation measures.

The Pleasanton General Plan also sets forth the following goals, policies, and programs that are relevant to the proposed project:

- **Goal 1:** Reduce noise to acceptable levels throughout the community.
  - **Policy 1:** Require new projects to meet acceptable exterior noise level standards.
    - **Program 1.1:** Use the normally acceptable designation and text description contained in Table 11-5 “Noise and Land-Use Compatibility Guidelines,” to determine the acceptability of new development and to determine when noise level standard of 60 dBA  $L_{dn}$  for exterior noise in private or shared outdoor use areas studies are required. For new single-family residential development, maintain a maximum day/night average excluding front yards. For new multi-family residential development, maintain a maximum standard of 65 dBA  $L_{dn}$  in community outdoor recreation areas (or 60 dBA  $L_{dn}$  when the outdoor noise is due to aircraft). Noise standards are not applied to balconies or front yards. In the Downtown, the City Council will evaluate the requirement to achieve these standards on a case-by-case basis.
    - **Program 1.2:** Where high noise levels are the result of railroad trains, an exterior noise level of up to 70 dBA  $L_{dn}$  would be considered compatible with most residential development recognizing that day-night average noise levels are controlled by intermittent, loud events. Vibration-sensitive land uses located near the Union Pacific Railroad tracks should demonstrate compatibility with the Federal Transit Administration’s vibration impact criteria by completing site-specific vibration analyses.
    - **Program 1.3:** Use noise guidelines and contours to determine the need for noise studies, and require new developments to construct or pay for noise attenuation features as a condition of approving new projects. An exterior increase of more than 4 decibels is considered significant.
    - **Program 1.4:** Require noise studies for future projects to use a consistent format, to include a description of the methodology and assumptions used, to analyze alternative noise mitigation measures, and to evaluate the effectiveness of the mitigation following implementation.
    - **Program 1.5:** Encourage the use of setbacks, landscaped earth berms, and frontage roads where feasible to reduce exterior noise levels. The use of soundwalls should only be used where other mitigation measures are not feasible. Where sound and frontage road walls are needed, design and high quality materials, as well as landscaping, should be used to mitigate their visual impact.
  - **Policy 3:** Ensure that noise does not exceed interior noise levels of 45 dBA  $L_{dn}$  for residential uses and those levels specified in noise studies for other uses.

- **Program 3.1:** Require new developments to pay their fair share of mitigation measures necessary to reduce interior noise levels within existing adjacent or impacted land uses.
- **Program 3.2:** Require noise-attenuation measures when necessary to ensure that interior noise levels for new single- and multi-family residences do not exceed 45 dBA  $L_{dn}$ . Interior noise levels shall not exceed 45 dBA  $L_{dn}$  in any new residential units (single and multi family). Development sites exposed to noise levels exceeding 60 dBA  $L_{dn}$  shall be analyzed following protocols in Appendix Chapter 12, Section 1208, A, Sound Transmission Control, 2001 (current) California Building Code, Section 1207.
- **Program 3.3:** New residential development affected by noise from railroad trains and aircraft shall be designed to limit typical maximum instantaneous noise levels to 50 dBA in bedrooms and 55 dBA in other rooms.
- **Program 3.4:** Appropriate interior noise levels in commercial, industrial, and office buildings are a function of the use of the space. Interior noise levels in noise-sensitive spaces (e.g., offices) generally should be maintained at 45 dBA  $L_{eq}$  or less (hourly average).
- **Policy 4:** Control noise at its source to maintain existing noise levels, and in no case to exceed acceptable noise levels as established in the Noise and Land Use Compatibility Guidelines, Table 11-5.
  - **Program 4.1:** Enforce the noise emission standards for various noise-emitting land uses established in the City's Noise Ordinance.
  - **Program 4.6:** Require developers of new projects that would significantly increase noise in nearby homes to mitigate noise impacts with walls, berms or other measures, and/or to provide noise attenuating measures in the homes.
- **Policy 5:** Protect schools, hospitals, libraries, religious facilities, convalescent homes, and other noise-sensitive uses from noise levels exceeding those allowed in residential areas
  - **Program 5.1:** Locate new noise-sensitive land uses away from noise sources unless development plans include appropriate mitigation measures.
  - **Program 5.2:** Locate new noise sources away from noise-sensitive land uses unless development plans include appropriate mitigation measures.
- **Policy 6:** Limit truck traffic in residential and commercial areas to designated truck routes, as consistent with State law.
  - **Program 6.1:** Limit construction, delivery, and through-truck traffic to designated routes.
  - **Program 6.2:** Enforce the use of truck routes.
- **Policy 7:** Design City streets to reduce noise levels in adjacent areas.
  - **Program 7.1:** As appropriate, require sound-attenuating paving on streets, earth berms, setbacks, sound walls, and/or other noise reduction techniques as conditions of development approval. Developers should use sound walls only where other techniques are not feasible. Where sound walls are needed, design and high quality materials, as well as landscaping, should be used to mitigate their visual impact.

Pleasanton also has adopted a noise ordinance, which regulates the level of noise emanating from residential, commercial, and industrial properties. The ordinance is intended to discourage unusually noisy activities but provides for exceptions in certain cases. In addition, the ordinance regulates the use and operation of skateboard ramps and power leaf blowers. The City also uses

conditions of project approval to address noise issues, for example by further restricting the hours of construction.

### ***Pleasanton Municipal Code***

#### *Stationary Noise Limits*

Noise limits included in Chapter 9.04 of the Municipal Code include the following :

- Residential property: Noise level in excess of 60 dBA at any point outside of the property plane is prohibited.
- Commercial or industrial use adjacent to a residential zone: Any commercial or industrial use, which is located within 300 feet from any residential zone and which remains open for business at any time between the hours of 10:00 p.m. and 6:00 a.m. shall not exceed the residential noise standard at the property plane between the residential zoning district and the commercial zoning district.
- Commercial property: Noise level in excess of 70 dBA at any point outside of the property plane is prohibited.
- Industrial property: Noise level in excess of 75 dBA at any point outside of the property plane is prohibited.

#### *Construction Noise (Section 9.04.100)*

Section 9.04.100 of the Municipal Code provides the following regarding construction noise:

Between the hours of 8:00 a.m. and 8:00 p.m. daily, except Sunday and holidays, when the exemption shall apply between 10:00 a.m. and 6:00 p.m., construction, alteration or repair activities which are authorized by a valid city permit shall be allowed if they meet at least one of the following noise limitations:

- A. No individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet. If the device is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close to 25 feet from the equipment as possible; or
- B. The noise level at any point outside of the property plane of the project shall not exceed 86 dBA. (Prior code § 4-9.07(d))

### **3.11.4 - Methodology**

The proposed Base Plan's noise impacts were evaluated through noise measurements and modeling of potential noise impacts. The analysis methodology is described below.

#### **Measurement Procedure and Criteria**

##### ***Noise Measurement Locations***

The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources located within the Plan Area, to provide a baseline for any potential noise impacts that may be created by development of the proposed Base Plan, and to provide a representative

sampling of the existing noise environment. The sites are described previously in Table 3.11-3 through Table 3.11-5, and are shown in Exhibit 3.11-1. Appendix F includes the monitoring data.

**Noise Measurement Equipment**

The October 10, 2012, noise monitoring was performed using an Extech Model 407780 Type 2 integrating sound level meter. The November 2013 noise monitoring was performed using a Larson Davis Model 861 Class 1 integrating sound level meter. The Extech and Larson Davis meters were programmed in “slow” mode to record the sound pressure level at one second intervals in A-weighted form. The sound level meters and microphones were mounted approximately five feet above the ground and 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 additional noise monitoring, conducted in late November 2013, was performed using a Larson Davis Model 831 calibrated with a Larson Davis calibrator.

**Traffic Noise Modeling Methodology**

Noise impacts related to vehicular traffic were modeled using a version of the Federal Highway Administration (FHWA) Traffic Noise Prediction Model (FHWA-RD-77-108), as modified for L<sub>dn</sub> and the “Calveno” energy curves. Site-specific information is entered, such as roadway traffic volumes, roadway active width, source-to-receiver distances, travel speed, noise source and receiver heights, and the percentages of automobiles, medium trucks, and heavy trucks that the traffic is made up of throughout the day, amongst other variables.

**Roadway Assumptions**

Table 3.11-7 presents the hourly traffic flow distribution (vehicle mix) used in this analysis. The vehicle distribution represents a statewide mix, obtained from Caltrans and from field observations of similar urban area arterial and collector roads. The vehicle mix provides the hourly distribution percentages of automobiles, medium trucks, and heavy trucks for input into the FHWA Model.

**Table 3.11-7: Roadway Vehicle Mix**

Roadway Classification	Vehicle Type	Percent of Hourly Distribution		
		Day (7 a.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Overall
Statewide Mix	Automobiles	88.08	9.34	97.42
	Medium Trucks	1.65	0.19	1.84
	Heavy Trucks	0.66	0.08	0.74

Source: California Department of Transportation, 2010; FCS, 2015.

### **Source Assumptions**

Noise is a function of both speed and average daily traffic volumes (ADTs). An average speed of 40 miles per hour was used to assess the impacts from project-related traffic along the roads within the project vicinity. To assess the roadway noise generation in a uniform manner, all vehicles were analyzed at the single-lane-equivalent acoustic center of the roadway being analyzed, which means all lanes were analyzed as one lane located at the centerline of the roadway, instead of analyzing each lane in the roadway as a separate noise source. The width of each single-lane equivalent was based on the right-of-way and near-far lane lengths (i.e., the distance between the middle lines of each outside lane) as determined by the General Plan Roadway Classification. In order to determine the height above the road grade from where the noise is being emitted, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires, and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

### **Transportation and Stationary Noise Impacts**

In addition to the increase of traffic on the nearby roadways, implementation of the Specific Plan may cause potential stationary noise impacts from rooftop mechanical equipment, parking lot areas, and industrial uses.

### **Thresholds of Significance**

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, noise impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would cause:

- 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.
- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (the General Plan states an increase on roadways over 4 dBA would be considered significant).
- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- 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.
- 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. (Refer to Section 7, Effects Found not to be Significant.)

Generally, a project may have a significant effect on the environment if it would substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

For the proposed Base Plan, the significance of anticipated noise effects is based on a comparison between predicted noise levels and noise criteria defined by the City of Pleasanton. For the Base Plan, noise impacts are considered significant if existing or proposed noise-sensitive land uses would be exposed to noise levels in excess of the City of Pleasanton General Plan and Municipal Code standards as described above.

### 3.11.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Construction Noise

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**Impact NOI-1:**      **Construction activities associated with development of land use activities contemplated by the Specific Plan may expose sensitive receptors to noise levels in excess of adopted standards or cause a substantial temporary increase in ambient noise levels.**

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#### *Impact Analysis*

As stated previously, the City of Pleasanton Municipal Code allows construction between the hours of 8:00 a.m. and 8:00 p.m. daily, except Sunday and holidays, when the exemption shall apply between 10:00 a.m. and 6:00 p.m. The Municipal Code also indicates that construction, alteration, or repair activities that are authorized by a valid city permit shall be allowed if they meet at least one of the following noise limitations:

- A. No individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet. If the device is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close to 25 feet from the equipment as possible; or
- B. The noise level at any point outside of the property plane of the project shall not exceed 86 dBA. (Prior code § 4-9.07(d))

Construction noise represents a short-term increase in ambient noise levels. Noise impacts from construction activities associated with development of land use activities within the Plan Area would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

Construction activities within the Plan Area are anticipated to include site grading, construction of approximately 1,300 residential units, 91,000 square feet of retail uses, 442,000 square feet of



campus office use, 1,057,000 square feet of industrial flex uses, 46,000 square feet of destination uses, 86,000 square feet of public and institutional uses, and 53 acres of public park uses.

The closest sensitive receptors to the Plan area consist of residences located are located to the west, in the Ironwood, and Stoneridge Square neighborhoods. Homes in the Ironwood neighborhood, on the east side of Chatham Place, are located at the Plan Area boundary, and directly north of the OSC. In the Stoneridge Square neighborhood, directly north of Lake I, the homes along the east side of Chocolate Street are located at the Plan Area boundary.

Construction noise impacts to these sensitive receptors have been calculated according to the equipment noise levels listed in Table 3.11-8.

**Table 3.11-8: Construction Equipment Noise Emissions and Usage Factors**

Equipment	Acoustical Use Factor (percent)	Actual Measured L <sub>max</sub> @ 50 feet (dBA, slow)
Auger Drill Rig	20	84
Backhoe	40	78
Bar Bender	20	N/A
Compactor (ground)	20	83
Compressor (air)	40	78
Concrete Batch	15	N/A
Concrete Mixer Truck	40	79
Concrete Pump	20	81
Concrete Saw	20	90
Crane	16	81
Dozer	40	82
Dump Truck	40	76
Excavator	40	81
Flat Bed/Water Truck	40	74
Front End Loader	40	79
Generator	50	81
Grader/Scraper	40	84
Jackhammer	20	89
Paver	50	77
Pneumatic Tools	50	85
Pumps	50	81
Roller	20	80

Source: FHWA RCNM User's Guide Table 1.

Construction noise levels within the Plan Area 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 the table above. The greatest noise impacts to the nearby residential uses would be anticipated to occur during the grading of the project site. Construction noise has been modeled on the equipment assumptions, which assumed that grading of the project site would consist of the simultaneous operation of one grader, one rubber tired dozer, one water truck, and one tractor/loader/backhoe. The equipment was placed along the edge of the Plan Area adjacent to the above mentioned residences and 8 feet above ground level.

The combined noise impact generated by this equipment working together in the same place, at the same time is 89.9 dBA<sup>1</sup>. Using soft-site parameters (a loss of 6 dBA per doubling of distance from the source), the 86 dBA contour is estimated to occur at a distance of approximately 78 feet. Construction equipment such as graders, dozers, and tractor/loader/backhoes are more mobile; as such, the noise generated by such equipment is transient in nature and will not generate high levels of noise for extended periods at one location. Although the pass-by noise level at adjacent receptors may be high, the average construction noise level across the site would be in the area of 67 dBA (based on an average distance of 732 feet from the source).<sup>2</sup> Nonetheless, to minimize impacts upon neighboring properties from construction noise, Mitigation Measure NOI-1a requires stationary noise-generating construction equipment to be placed a minimum of 78 feet from the property line of adjacent residential uses. This mitigation would also apply to construction within the Plan Area adjacent to residential uses. In addition, Mitigation Measure NOI-1b requires that “all construction equipment utilizes noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.” With the implementation of mitigation, and after compliance with the Municipal Code restriction on the hours for construction, construction-related impacts would be less than significant.

#### *Offsite Improvements*

Implementation of the Specific Plan includes several offsite improvements (Exhibit 2-9 and Exhibit 2-10). Offsite improvements near residences would include wastewater lines extensions or expansions from the project site below Lake I to Mohr Avenue, from Busch Road north on Ironwood Drive, and from El Charro Road to the intersection of Kamp Drive and Stoneridge Drive. In addition, an existing 8-inch wastewater line in Kamp Drive, west of the Plan Area, would be upsized to 10-inches. Improvements also include extension of potable and recycled water lines from El Charro Road to Stoneridge Drive south of Arroyo Mocho.

An excavator would be the noisiest piece of equipment used during construction of these infrastructure improvements. Therefore, as shown by the noise levels in Table 3.11-8, noise levels generated by operation of an excavator would range up to 81 dBA at a distance of 50 feet. Therefore, construction noise levels from wastewater line improvements in the proposed improvement areas below Lake I to Mohr Avenue, from Busch Road to Ironwood Drive, and from El

<sup>1</sup> The estimated sound level is derived from the equation  $L = 10 \text{ Log}_{10} (10^{8.4} + 10^{8.2} + 10^{7.8} + 10^{7.4})$ .

<sup>2</sup> The average noise level represents the noise level at an average distance of 732 feet across the northern portion of the Plan Area, which is the narrowest area. At times, the construction equipment would be closer than 732 feet from the adjacent residential receptors; at other times, it would be further away than 732 feet. As such, 732 feet represents an average distance and 67 dBA represents the noise level at that average distance.

Charro Road to Stoneridge Drive south of Arroyo Mocho to Kamp Drive would be expected to reach maximums of up to approximately 86 dBA at the edge of the project right of way. Construction noise levels from improvements within Kamp Drive would range up to 85 dBA at the edge of the right of way.

The City limits construction noise to 86 dBA at the property plane of the project; therefore, the Base Plan meets this standard.

#### *Summary*

Construction activities related to implementation of the Specific Plan would be required to comply with the Municipal Code requirements. With incorporation of mitigation measures Mitigation Measure NOI-1a and Mitigation Measure NOI-1b, impacts from construction noise would be less than significant.

#### ***Level of Significance Before Mitigation***

Potentially significant impact.

#### ***Mitigation Measures***

**MM NOI-1a** Stationary noise-generating construction equipment shall be placed a minimum of 78 feet from the property line of the closest existing residential property line, when and where feasible.

**MM NOI-1b** Construction contractors operating within the Plan Area or the offsite utility improvement areas shall be required to adhere to the following noise attenuation requirements:

- All demolition and construction activities, inspections, plan checking, material delivery, staff assignment or coordination, etc. shall be limited to between the hours of 8:00 a.m. and 8:00 p.m., Monday through Saturday. No demolition or construction activities shall be allowed on state or federal holidays or on Sundays. The Director of Community Development may allow earlier start times or later stop times for specific construction activities, e.g., concrete pouring.
- All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) meeting Department of Motor Vehicle noise standards that are no less effective than those originally installed by the manufacturer.
- Prior to initial start of construction, the hours of construction shall be posted on-site.

#### ***Level of Significance after Mitigation***

Less than significant impact.

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## Groundborne Vibration

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**Impact NOI-2: Development and land use activities contemplated by the Specific Plan would not result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.**

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### *Impact Analysis*

This impact discussion analyzes the potential for the proposed Base Plan to cause an exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Vibration levels in the project area would be influenced by construction activities and from the adjacent UPRR rail line just north of Stanley Boulevard.

A vibration impact would be generally considered significant if it involves any construction-related or operations-related impacts in excess of 0.05 inch per second RMS vertical velocity at the nearby sensitive receptors (0.035 inch per second is barely perceptible). The construction- and operations-related (UPRR) vibration impacts have been analyzed separately below.

#### *Construction Induced Vibration*

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 3.11-2 gives approximate vibration levels for particular construction activities and provides a reasonable estimate for a wide range of soil conditions.

Construction activities can produce vibration that may be felt by adjacent uses. The primary sources of vibration during construction would be from a large bulldozer. As indicated in Table 3.11-2, a large bulldozer would produce the largest amount of equipment-related vibration on the project site: 0.089 inch per second PPV at 25 feet with an approximate vibration level of 87.

The closest receptors to the project site are the residences located north of Lake I, and residences located to the north of the OSC. In both locations residences are approximately 50 feet from the boundary of the project site. It is anticipated that the vibration levels caused by a large bulldozer operating on the edge of the Plan Area at 50 feet from the nearest structure would be approximately 0.0315 inch per second RMS. This vibration level would not exceed the 0.2 inch per second significance threshold for structural damage to non-engineered timber and masonry buildings and the impact is considered to be less than significant.

#### *Operationally Induced Vibration*

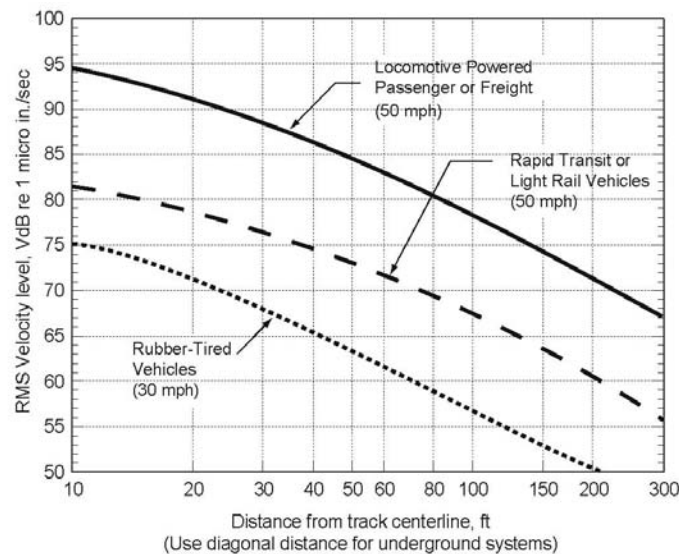
The FTA's "Transit Noise and Vibration Impact Assessment" (2006) (FTA Manual) was used to assess potential vibration impacts from the adjacent rail line. The FTA Manual provides recommended vibration thresholds, and reference data for assessing probable groundborne vibration near railroad or other fixed guide-way transportation systems. A summary of the groundborne vibration criteria is outlined in Table 3.11-9. According to the FTA Manual, the project site falls into the Category 2

criterion. The manual suggests that a vibration impact zone of 200 feet may be present for train movements at 60 to 70 mph. For slower movement, the impact distance is much smaller.

**Table 3.11-9: FTA Groundborne Vibration and Noise Criteria**

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch /sec)			GBN Impact Levels (dB re 20 micropascals)		
	Frequent Events <sup>1</sup>	Occasional Events <sup>2</sup>	Infrequent Events <sup>3</sup>	Frequent Events <sup>1</sup>	Occasional Events <sup>2</sup>	Infrequent Events <sup>3</sup>
<b>Category 1:</b> Buildings where vibration would interfere with interior operations.	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
<b>Category 2:</b> Residences and buildings where people normally sleep.	72VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
<b>Category 3:</b> Institutional land uses with primarily daytime uses.	75VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA
Notes: 1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category. 2. "Occasional Events" is defined between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations. 3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines. 4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors. Source: FTA, 2006.						

From the FTA Manual, Figure 10-1 shows a reference vibration level of 90 VdB at 25 feet from the track centerline for a heavy locomotive traveling at 50 miles per hour. Figure 3.11-1 illustrates the FTA's referenced vibration level curve.

**Figure 3.11-1: Generalized Ground Surface Vibration Curves****Figure 10-1. Generalized Ground Surface Vibration Curves**

The FTA developed the curves from many measurements of groundborne vibration. FCS utilized the generalized ground surface vibration curves and extrapolated data to compare the results to the existing and future track conditions.

According to the FTA's Noise and Vibration Assessment Manual, and as previously mentioned, the Base Plan falls into a Category 2 "Infrequent Events" criterion, which has a 80 VdB threshold. Category 2 refers to residential land use and "Infrequent Events" is defined as less than 30 vibration events of the same source that occur daily. It is estimated that there will be approximately 13 daily freight operations and four ACE light rail operations (equivalent to eight trips) along the tracks adjacent to the project site for a total of 21 vibration events per day. Train speeds are estimated to vary between 20 and 30 mph for freight trains and are approximately 50 mph for the ACE light rail. The ACE light rail is not part of the project, but an existing condition.

Residential areas proposed by the Specific Plan would be constructed over 100 feet from the centerline of the tracks. It is estimated that rail operations traveling approximately 20 mph would have a vibration impact of 70 VdB; the ACE would potentially have an impact of 73 VdB (see Table 3.11-10). The impact would be less than the FTA's vibration threshold of 80 VdB. It should be noted that even though the impact is below the FTA threshold, humans are sensitive to vibration and there is a potential for train vibration to be felt inside the building.

**Table 3.11-10: Projected Vibration for Freight Operations**

Speed <sup>1</sup>	Vibration @ 25 feet (FTA Manual)	Speed Correction Factor	Vibration Level (VdB)					
			Distance from Centerline of Track (square feet) <sup>2</sup>					
			12.5	25	37.5	50	75	100
10	76	-14	82	76	73	70	67	64
20	82	-8	88	82	79	76	73	70
30	86	-4	92	86	83	80	77	74
40	88	-2	94	88	85	82	79	76
50	90	0	96	90	87	84	81	78
60	92	2	98	92	89	86	83	80

Notes:  
 This table is based on reference vibration level of 90 VdB at 25 feet from track centerline as indicated in FTA Manual (Figure 3.11-1).  
<sup>1</sup>. Referenced vibration level: Speed 50 mph, 90 VdB at a distance of 25 feet from track centerline.  
<sup>2</sup>. Shaded area corresponds to the vibration impact range based on speed and distance.  
 Source: FTA, 2006.

As the adjacent freight rail uses would have a vibration impact of 70 VdB and the ACE rail uses would have an impact of 73 VdB, the overall vibration impact from rail uses would be less than the FTA’s vibration threshold of 80 VdB and are considered to be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Traffic Noise**

**Impact NOI-3: Development and land use activities contemplated by the Specific Plan would exceed the allowable traffic noise increase threshold.**

**Impact Analysis**

Impacts attributable to Base Plan-specific traffic increases would be considered significant if they create a 4 dBA or greater increase in noise levels along roadways accessed by Base Plan-specific traffic in residential areas. PM peak-hour values for studied intersections were taken from the Base Plan-specific Traffic Impact Analysis (Appendix H) and converted to road segment ADTs. Offsite noise levels were calculated along roadway segments in the project vicinity for the following scenarios:

- Existing conditions
- Near-Term Without Project
- Near-Term With Project
- Cumulative Without Project
- Cumulative With Project

Using the traffic noise modeling parameters previously outlined, each scenario was modeled to determine Base Plan-specific increases in noise levels at a uniform distance of 50 feet from roadway centerline. The uniform distance allows for direct comparisons of potential increases or decreases in noise levels based upon various traffic scenarios; however, at this distance, no specific noise standard necessarily applies. Therefore, the change in a noise level between scenarios is the focus of this portion of the analysis, rather than the resulting independent noise level for any one segment.

Table 3.11-11 shows that largest increase in traffic noise levels would occur in the near term with project scenario on the segment of El Charro Road south of Stoneridge Drive/West Jack London Boulevard. Traffic noise levels would increase at this location by 14.7 dBA over conditions without the project, as a result of the planned increase in capacity through construction of a new bridge and widening of El Charro Road. Although the additional traffic along that road segment has an increase greater than 4 dBA, the road segment is located in a commercial area and would not cause an exceedance of the commercial noise standard 70 dBA  $L_{dn}$ .

Table 3.11-12 shows that there would be a 10.6 dBA increase in noise levels for the near-term with project scenario on the road segment of Boulder Street east of Valley Avenue. The increase is due to the fact that Boulder Street at this location is currently an access road for the existing self-storage facility and therefore has little existing traffic. The road would be extended to facilitate egress to the Plan Area on the southwestern side of the site. Although the additional traffic along that road segment has an increase greater than 4 dBA, the road segment is located in an existing commercial and proposed residential area and would not cause an exceedance of the residential noise standard of 60 dBA  $L_{dn}$  at residential boundaries or an exceedance of the commercial noise standard of 70 dBA  $L_{dn}$  at commercial boundaries. Table 3.11-12 also shows that there is an increase in noise levels of 4.3 dBA (greater than 4 dBA threshold of significance) for the cumulative with project scenario on the road segment of I-580 Eastbound Ramp west of El Charro Road. Again, this is due to offsite roadway improvements to El Charro Road, which would allow for an increase in capacity. Although the additional traffic along that road segment has an increase greater than 4 dBA, the road segment is located in a commercial area and would not cause an exceedance of the commercial noise standard 70 dBA  $L_{dn}$ .

The segment of Busch Road east of Ironwood Drive would increase in both the near-term plus project and cumulative plus project scenarios by over 4 dBA (4.3 and 7.5 dBA, respectively). The existing uses just north of this segment are commercial offices. The 4.3-dBA and 7.5-dBA increases would not cause an exceedance of the commercial noise standard of 70 dBA  $L_{dn}$ . Furthermore, the existing multi-family residential uses to the north of Busch Road are over 335 feet away from the road right-of-way and partially screened by the commercial uses adjacent to the road. The noise levels at these existing uses would attenuate to below 50 dBA  $L_{dn}$ . Areas south of Busch Road and



west of Ironwood Drive within the Plan Area are proposed for private open space. Parks and Open Space land uses are compatible with noise levels up to 65 dBA  $L_{dn}$ . As shown in Table 3.11-4, noise levels are less than 65 dBA  $L_{dn}$  at a distance of 50 feet from the roadway centerline. Noise impacts from traffic are not anticipated at the future private open space.

The segment of Busch Road west of Ironwood Drive would increase under the cumulative plus project scenario by 4.5 dBA compared with cumulative conditions without the project. The existing uses north of this segment of Busch Road are office and pre-school land uses. While the resulting traffic noise levels of 64.8 dBA  $L_{dn}$  would not exceed the “normally acceptable” land use compatibility standard for office land uses, they would exceed the “normally acceptable” land use compatibility standard for school land uses. However, they would not exceed the “conditionally acceptable” land use compatibility standard of 75 dBA  $L_{dn}$  for school land uses. Furthermore, the outdoor active use spaces of the pre-school are shielded from traffic noise by the existing buildings, which would provide a minimum of 5 dBA reduction, reducing traffic noise levels at these areas to within the “normally acceptable” range for school land uses.

However, as these increases in traffic noise are greater than the 4 dBA threshold of significance stated in the General Plan Noise Element, impacts are considered to be significant and unavoidable. Mitigation in the form of a noise barrier is not feasible, desirable, or necessary for commercial properties that are adjacent to road segments with elevated noise levels (those subject to an increase of 4 dBA or greater), since the noise levels at these commercial sites are still compatible with commercial uses (less than 70 dBA  $L_{dn}$ ).

Because specific details on elevations and pad locations for residential lots within the Specific Plan are not available at this juncture in the planning process, it is not possible to calculate whether noise barriers would be needed for uses adjacent to roads within the Specific Plan and/or where barrier would need to be located. Therefore, Mitigation Measure NOI-3 is required to ensure that traffic noise impacts to future residential receptors are calculated and appropriate actions are taken to ensure noise impacts would be less than significant.

**Table 3.11-11: Areawide Traffic-Related Noise Increases, North/South Roadways**

Road Segment	Existing		Near-Term Without Project		Near-Term With Project			Cumulative Without Project		Cumulative With Project		
	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase
<b>N/S ROADWAYS</b>												
<b>Santa Rita Road</b>												
n/o Rosewood Dr	36,670	71.0	31,300	70.4	29,750	70.1	-0.3	30,500	70.2	30,270	70.2	0.0
s/o Rosewood Dr	30,440	70.2	28,300	69.9	27,370	69.8	-0.1	27,200	69.7	27,590	69.8	0.1
n/o Las Positas Blvd	33,810	70.7	29,900	70.2	28,970	70.0	-0.2	29,400	70.1	29,770	70.1	0.0
s/o Las Positas Blvd	36,260	71.0	33,500	70.7	34,150	70.7	0.0	28,500	69.9	30,450	70.2	0.3
n/o Stoneridge Dr	29,180	70.1	34,500	70.8	35,130	70.9	0.1	29,500	70.1	31,430	70.4	0.3
s/o Stoneridge Dr	35,320	70.9	42,600	71.7	42,670	71.7	0.0	39,700	71.4	38,870	71.3	-0.1
n/o Valley Ave	36,730	71.1	40,200	71.4	40,270	71.4	0.0	38,000	71.2	37,170	71.1	-0.1
s/o Valley Ave	22,110	68.8	26,800	69.7	26,060	69.6	-0.1	29,600	70.1	26,160	69.6	-0.5
n/o I-580 EB Ramps/Pimlico	37,730	71.2	35,200	70.9	34,410	70.8	-0.1	36,100	71.0	37,310	71.1	0.1
s/o I-580 EB Ramps/Pimlico	32,230	70.5	29,600	70.1	28,110	69.9	-0.2	28,200	69.9	27,950	69.9	0.0
s/o I-580 WB off ramps	34,010	70.7	27,200	69.7	26,650	69.7	0.0	31,400	70.4	32,610	70.5	0.1
<b>Busch Road</b>												
n/o Valley Ave	2,770	59.8	4,100	61.5	7,420	64.1	2.6	4,200	61.6	8,620	64.8	3.2
<b>Valley Avenue</b>												
n/o Boulder St	25,080	69.4	23,600	69.1	23,330	69.1	0.0	19,600	68.3	20,040	68.4	0.1
s/o Boulder St	27,090	69.7	25,900	69.5	26,560	69.6	0.1	22,500	68.9	23,870	69.2	0.3
n/o Stanley Blvd	22,560	68.9	25,900	69.5	26,560	69.6	0.1	22,600	68.9	24,030	69.2	0.3

**Table 3.11-11 (cont.): Areawide Traffic-Related Noise Increases, North/South Roadways**

Road Segment	Existing		Near-Term Without Project		Near-Term With Project			Cumulative Without Project		Cumulative With Project		
	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase
<b>N/S ROADWAYS</b>												
n/o Bernal Ave	13,350	66.7	18,400	68.0	18,400	68.0	0.0	17,700	67.9	17,700	67.9	0.0
s/o Bernal Ave	5,980	63.2	14,700	67.1	14,840	67.1	0.0	14,700	67.1	14,840	67.1	0.0
<b>Bernal Avenue</b>												
s/o Stanley Blvd	13,190	66.6	20,200	68.5	21,340	68.7	0.2	22,100	68.8	23,310	69.1	0.3
<b>Stanley Boulevard</b>												
n/o Driveway	14,480	67.0	19,400	68.3	24,930	69.4	1.1	16,400	67.5	24,660	69.3	1.8
<b>First Street</b>												
n/o Vineyard/Ray St	17,980	67.9	17,500	67.8	22,710	69.0	1.2	14,300	67.0	22,210	68.9	1.9
s/o Vineyard/Ray St	21,060	68.6	19,500	68.3	24,290	69.3	1.0	15,500	67.3	22,990	69.0	1.7
s/o Stanley Blvd	13,750	66.8	18,400	68.0	23,610	69.1	1.1	15,800	67.4	23,740	69.2	1.8
n/o Bernal Ave	24,380	69.3	23,900	69.2	26,930	69.7	0.5	23,600	69.1	26,630	69.7	0.6
<b>Sunol Boulevard</b>												
s/o Bernal Ave	23,760	69.2	26,300	69.6	29,110	70.0	0.4	26,200	69.6	29,010	70.0	0.4
n/o Valley Av/Junipero St	16,240	67.5	24,200	69.2	27,020	69.7	0.5	24,600	69.3	27,420	69.8	0.5
s/o Valley Av/Junipero St	18,110	68.0	25,600	69.5	28,280	69.9	0.4	27,300	69.8	29,980	70.2	0.4
<b>I-680 NB on ramp</b>												
n/o Sunol Blvd	3,840	61.2	6,400	63.5	6,400	63.5	0.0	5,600	62.9	5,600	62.9	0.0
n/o Bernal Ave	11,830	66.1	11,200	65.9	11,200	65.9	0.0	10,800	65.7	10,800	65.7	0.0

**Table 3.11-11 (cont.): Areawide Traffic-Related Noise Increases, North/South Roadways**

Road Segment	Existing		Near-Term Without Project		Near-Term With Project			Cumulative Without Project		Cumulative With Project		
	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase
<b>N/S ROADWAYS</b>												
<b>I-680 SB Ramp</b>												
n/o Sunol Blvd	5,060	62.4	9,000	64.9	10,610	65.7	0.8	11,200	65.9	12,810	66.5	0.6
s/o Bernal Ave	14,750	67.1	18,400	68.0	18,680	68.1	0.1	17,300	67.8	17,580	67.9	0.1
<b>Tassajara Road</b>												
n/o I-580 WB off-ramp	29,780	70.1	27,600	69.8	28,050	69.9	0.1	33,500	70.7	34,550	70.8	0.1
<b>Fallon Road</b>												
n/o Dublin Blvd	11,250	65.9	13,200	66.6	14,650	67.1	0.5	39,800	71.4	41,650	71.6	0.2
s/o Dublin Blvd	13,940	66.8	17,300	67.8	19,750	68.4	0.6	42,600	71.7	44,450	71.9	0.2
n/o I-580 WB on- and off ramps	17,070	67.7	21,300	68.7	23,750	69.2	0.5	42,100	71.6	43,950	71.8	0.2
s/o I-580 WB on- and off ramps	14,150	66.9	18,100	68.0	26,510	69.6	1.6	34,100	70.7	40,710	71.5	0.8
<b>El Charro Road</b>												
n/o I-580 EB Ramps	14,160	66.9	18,100	68.0	26,710	69.7	1.7	34,000	70.7	40,610	71.5	0.8
s/o I-580 EB Ramps	11,460	66.0	18,100	68.0	34,880	70.8	2.8	26,900	69.7	41,680	71.6	1.9
n/o Stoneridge Dr/W Jack London Blvd	12,580	66.4	18,900	68.2	35,680	70.9	2.7	26,800	69.7	41,580	71.6	1.9
s/o Stoneridge Dr/W Jack London Blvd	510	52.5	900	54.9	26,350	69.6	14.7	2,100	58.6	27,150	69.7	11.1

**Table 3.11-11 (cont.): Areawide Traffic-Related Noise Increases, North/South Roadways**

Road Segment	Existing		Near-Term Without Project		Near-Term With Project			Cumulative Without Project		Cumulative With Project		
	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase
<b>N/S ROADWAYS</b>												
<b>Isabel Avenue</b>												
n/o E Jack London Blvd	26,160	69.6	39,100	71.3	38,660	71.3	0.0	59,000	73.1	57,460	73.0	-0.1
s/o E Jack London Blvd	22,210	68.9	33,000	70.6	32,300	70.5	-0.1	56,200	72.9	54,000	72.7	-0.2
n/o Isabel Extension	22,210	68.9	28,400	69.9	27,700	69.8	-0.1	44,900	71.9	42,700	71.7	-0.2
s/o Isabel Extension	20,340	68.5	26,400	69.6	27,940	69.9	0.3	41,200	71.5	42,740	71.7	0.2
<b>Isabel Extension</b>												
s/o Stanley Blvd	9,250	65.1	12,400	66.3	12,910	66.5	0.2	19,100	68.2	18,110	68.0	-0.2
<b>Ironwood Drive</b>												
n/o Busch Rd	1,900	58.2	2,000	58.4	2,210	58.8	0.4	2,500	59.4	2,810	59.9	0.5
Notes: n/o = north of ;s/o = south of Source: FCS, 2015; Fehr & Peers, 2015.												

**Table 3.11-12: Areawide Traffic-Related Noise Increases, East/West Roadways**

Road Segment	Existing		Near-Term Without Project		Near-Term With Project			Cumulative Without Project		Cumulative With Project		
	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase
<b>N/S ROADWAYS</b>												
<b>Rosewood Drive</b>												
w/o Santa Rita Rd	13,770	66.8	11,200	65.9	11,820	66.1	0.2	11,700	66.1	12,320	66.3	0.2
<b>W. Las Positas Boulevard</b>												
w/o Santa Rita Rd	20,980	68.6	21,700	68.8	22,960	69.0	0.2	20,900	68.6	22,160	68.9	0.3
e/o Santa Rita Rd	11,870	66.1	11,100	65.9	11,420	66.0	0.1	9,800	65.3	10,120	65.5	0.2
<b>Stoneridge Drive</b>												
w/o Santa Rita Rd	15,730	67.4	22,400	68.9	25,180	69.4	0.5	19,800	68.4	22,580	68.9	0.5
e/o Santa Rita Rd	13,050	66.6	22,300	68.9	25,640	69.5	0.6	21,800	68.8	22,940	69.0	0.2
w/o El Charro Rd	4,040	61.5	17,800	67.9	21,880	68.8	0.9	29,000	70.0	30,880	70.3	0.3
<b>Valley Avenue</b>												
w/o Santa Rita Rd	15,150	67.2	15,800	67.4	16,440	67.6	0.2	17,900	67.9	18,540	68.1	0.2
e/o Santa Rita Rd	27,930	69.9	26,800	69.7	28,770	70.0	0.3	25,900	69.5	29,670	70.1	0.6
w/o Busch Rd	25,950	69.5	24,900	69.4	26,890	69.7	0.3	22,500	68.9	26,670	69.7	0.8
e/o Bush Rd	25,140	69.4	23,600	69.1	23,330	69.1	0.0	21,300	68.7	22,110	68.8	0.1
<b>Boulder Street</b>												
w/o Valley Ave	2,560	59.5	2,700	59.7	2,880	60.0	0.3	3,400	60.7	3,580	60.9	0.2
e/o Valley Ave	150	47.2	400	51.4	4,550	62.0	10.6	700	53.9	4,850	62.3	8.4
<b>Stanley Boulevard</b>												
w/o Valley Ave	15,410	67.3	19,100	68.2	24,630	69.3	1.1	17,500	67.8	25,730	69.5	1.7
e/o Valley Ave	25,920	69.5	32,400	70.5	33,770	70.7	0.2	33,400	70.6	38,170	71.2	0.6

**Table 3.11 12 (cont.): Areawide Traffic-Related Noise Increases, East/West Roadways**

Road Segment	Existing		Near-Term Without Project		Near-Term With Project			Cumulative Without Project		Cumulative With Project		
	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase
<b>N/S ROADWAYS</b>												
w/o Isabel Extension	25,900	69.5	31,600	70.4	30,840	70.3	-0.1	37,000	71.1	37,540	71.1	0.0
e/o Isabel Extension	26,410	69.6	33,800	70.7	32,530	70.5	-0.2	41,500	71.6	43,030	71.7	0.1
w/o El Charro Rd	—	—	—	—	33,770	70.7	—	—	—	37,380	71.1	—
e/o El Charro Rd	—	—	—	—	31,650	70.4	—	—	—	34,040	70.7	—
<b>Stanley Boulevard/Driveway</b>												
w/o First St/Stanley Blvd	6,740	63.7	6,500	63.5	6,820	63.7	0.2	8,600	64.7	8,920	64.9	0.2
e/o First St/Stanley Blvd	30	40.2	300	50.2	300	50.2	0.0	400	51.4	400	51.4	0.0
<b>Ray St./Vineyard Avenue</b>												
w/o First St	5,530	62.8	4,600	62.0	5,020	62.4	0.4	5,200	62.6	5,620	62.9	0.3
e/o First St	7,110	63.9	5,200	62.6	5,200	62.6	0.0	5,000	62.4	5,000	62.4	0.0
<b>Bernal Avenue</b>												
w/o Sunol/First St	20,850	68.6	20,900	68.6	21,960	68.8	0.2	23,000	69.0	23,970	69.2	0.2
e/o Sunol/First St	14,290	67.0	15,500	67.3	16,340	67.5	0.2	12,200	66.3	12,950	66.5	0.2
w/o Valley Ave	26,560	69.6	32,900	70.6	33,710	70.7	0.1	28,500	69.9	29,310	70.1	0.2
e/o Valley Ave	21,130	68.6	26,200	69.6	27,150	69.7	0.1	26,500	69.6	27,450	69.8	0.2
w/o I-680 SB Ramps	10,340	65.5	13,300	66.6	13,410	66.7	0.1	12,100	66.2	12,210	66.3	0.1
e/o I-680 SB Ramps	23,090	69.0	27,900	69.9	28,290	69.9	0.0	24,200	69.2	24,590	69.3	0.1
w/o I-680 NB on- and off-ramps	23,830	69.2	27,800	69.8	28,190	69.9	0.1	24,200	69.2	24,590	69.3	0.1

**Table 3.11 12 (cont.): Areawide Traffic-Related Noise Increases, East/West Roadways**

Road Segment	Existing		Near-Term Without Project		Near-Term With Project			Cumulative Without Project		Cumulative With Project		
	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase
<b>N/S ROADWAYS</b>												
e/o I-680 NB on- and off-ramps	36,980	71.1	40,300	71.5	41,100	71.5	0.0	35,600	70.9	36,400	71.0	0.1
<b>Valley Avenue/Junipero Street</b>												
w/o Sunol Blvd	3,300	60.6	5,600	62.9	5,740	63.0	0.1	6,500	63.5	6,640	63.6	0.1
e/o Sunol Blvd	3,970	61.4	4,600	62.0	4,600	62.0	0.0	5,000	62.4	5,000	62.4	0.0
<b>Sunol Boulevard</b>												
w/o I-680 NB on- and off-ramps	11,530	66.0	16,700	67.6	18,420	68.1	0.5	17,200	67.8	18,920	68.2	0.4
e/o I-680 NB on- and off-ramps	18,130	68.0	26,000	69.5	28,680	70.0	0.5	27,400	69.8	30,080	70.2	0.4
w/o I-680 SB Ramps	8,510	64.7	12,800	66.5	12,910	66.5	0.0	18,900	68.2	19,010	68.2	0.0
e/o I-680 SB Ramps	11,530	66.0	16,600	67.6	18,320	68.0	0.4	17,100	67.7	18,820	68.1	0.4
<b>I-580 EB Ramps/Pimlico Drive</b>												
w/o Santa Rita Rd	7,670	64.2	3,000	60.2	2,300	59.0	-1.2	7,000	63.9	6,440	63.5	-0.4
<b>I-580 WB Off-Ramp</b>												
e/o Santa Rita/Tassajara	5,070	62.5	0	—	0	—	—	4,600	62.0	4,600	62.0	0.0
w/o Santa Rita/Tassajara	14,880	67.1	7,400	64.1	6,400	63.5	-0.6	11,700	66.1	11,860	66.1	0.0
<b>Dublin Boulevard</b>												
w/o Fallon Rd	5,340	62.7	7,300	64.0	8,300	64.6	0.6	36,200	71.0	36,200	71.0	0.0
e/o Fallon Rd	10	35.4	0	—	0	—	—	40,000	71.4	40,000	71.4	0.0



**Table 3.11 12 (cont.): Areawide Traffic-Related Noise Increases, East/West Roadways**

Road Segment	Existing		Near-Term Without Project		Near-Term With Project			Cumulative Without Project		Cumulative With Project		
	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase	ADT	dB L <sub>DN</sub>	ADT	dB L <sub>DN</sub>	Project-Specific Increase
<b>N/S ROADWAYS</b>												
<b>I-580 WB On-Ramp/Off Ramp</b>												
w/o Fallon Rd	2,230	58.9	2,700	59.7	2,700	59.7	0.0	4,500	61.9	4,500	61.9	0.0
e/o Fallon Rd	7,410	64.1	9,300	65.1	15,260	67.2	2.1	14,500	67.0	19,260	68.2	1.2
<b>I-580 EB Ramp</b>												
w/o El Charro Rd	9,600	65.2	11,500	66.0	13,930	66.8	0.8	20,800	68.6	23,030	69.0	0.4
e/o El Charro Rd	1,140	56.0	4,500	61.9	10,240	65.5	3.6	3,500	60.8	9,440	65.1	4.3
<b>Jack London Boulevard</b>												
e/o El Charro Rod	13,410	66.7	18,000	68.0	21,430	68.7	0.7	33,300	70.6	36,130	71.0	0.4
w/o Isabel Ave	8,830	64.9	13,800	66.8	17,230	67.8	1.0	21,700	68.8	24,530	69.3	0.5
e/o Isabel Ave	16,040	67.5	22,700	69.0	25,550	69.5	0.5	30,500	70.2	32,350	70.5	0.3
<b>Isabel Extension</b>												
w/o Isabel Ave	9,250	65.1	12,400	66.3	12,920	66.5	0.2	19,100	68.2	18,120	68.0	-0.2
<b>Busch Road</b>												
w/o Ironwood Dr	3,930	61.3	4,100	61.5	7,420	64.1	2.6	3,100	60.3	8,620	64.8	4.5
e/o Ironwood Dr	2,030	58.5	2,100	58.6	5,630	62.9	4.3	1,200	56.2	6,830	63.7	7.5
Notes: e/o = east of; w/o = west of Source: FCS, 2015; Fehr & Peers, 2015.												

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM NOI-3** For all future residential development applications within the Specific Plan boundaries, once precise grading and architectural plans are made available, and prior to building permit issuance, a final acoustical impact analysis shall be performed to confirm that exterior noise standards of 60 dBA  $L_{dn}$  are achieved and interior noise levels are reduced to 45 dBA  $L_{dn}$  or less.

**Level of Significance After Mitigation**

Significant and unavoidable impact.

**Long-Term/Operational Noise**


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**Impact NOI-4:** **Development and land use activities contemplated by the Specific Plan may result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.**

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**Impact Analysis**

Community noise problems typically occur at levels that are well below the threshold for hearing loss. However, noise at less than hearing loss levels may create a variety of negative effects through loss of sleep, interference with communication, or lack of concentration. Noise-induced stress varies from one person to another and even varies within the same person from one day to the next. Therefore, there are no clear-cut limits that characterize a stress-free noise environment.

Noise analysis methodology is accurate only to the nearest whole decibel and most people only notice a change in the noise environment when the difference in noise levels is greater than 3 dBA. However, it is widely accepted that the average healthy ear can barely perceive changes of 3 dBA and that a change of 5 dBA is readily perceptible. The City's General Plan (Program 1.3) notes that a change of 4 dBA is considered a significant increase.

**Operational Noise**

Sensitive land uses such as single family residential, schools, libraries, museums, hospitals, personal care, meeting halls, and churches are compatible with exterior noise levels of 60 dBA  $L_{dn}$  or less. Multi-family residential, hotels, motels, outdoor sports and recreation, neighborhood parks and playgrounds are compatible with exterior noise levels of 65 dBA  $L_{dn}$  or less. Office buildings, businesses, and commercial and professional uses are compatible with exterior noise levels of 70 dBA  $L_{dn}$  or less.

General Plan Program 1.2 clarifies that “where high noise levels are the result of railroad trains, an exterior noise level of up to 70 dBA  $L_{dn}$  would be considered compatible with most residential development recognizing that day-night average noise levels are controlled by intermittent, loud events.” The proposed residential areas in the southern Plan Area would be subject to this requirement.

Future traffic noise levels adjacent to proposed residential land uses along Stanley Boulevard within the Plan Area would range up to 64.9 dBA  $L_{dn}$  at 50 feet from the roadway centerline (as shown in Table 3.11-12). The noise standard for residential uses is 60 dBA  $L_{dn}$ . Therefore, to reduce traffic-related noise levels, Mitigation Measure NOI-4a is provided, requiring that a noise barrier of at least 5 feet be constructed in the buffer zone between the proposed residential uses and Stanley Boulevard.

Future traffic noise levels along Valley Avenue are expected to be approximately 69.2 dBA  $L_{dn}$  (as shown in Table 3.11-12) adjacent to residential boundaries north of Stanley Boulevard within the Plan Area, as measured at 50 feet from the centerline. However, new residential land uses in this area would be constructed with inclusion of a required 50-foot setback buffer from the edge of right of way, which would reduce these noise levels to below 60 dBA  $L_{dn}$  at the nearest residential receptors. The noise standard for residential uses is 60 dBA. Therefore, to ensure the 50-foot buffer is constructed adjacent to residential uses along Valley Avenue, Mitigation Measure NOI-4b is required.

The UPRR rail line also runs just north of Stanley Boulevard. As shown in Table 3.11-5, the noise level at a distance of 82 feet from the rail line is 65.8 dBA  $L_{dn}$ . With the addition of the 50-foot buffer that is included in the Specific Plan, the distance to the proposed residential boundary is approximately 132 feet from the rail line. At this distance, noise levels would be reduced by approximately 2.7 dBA (using a 4.5 drop-off for soft-site conditions) to a level of 63.1 dBA  $L_{dn}$ . With the incorporation of the 5-foot berm called for in Mitigation Measure NOI-4a, the noise levels are reduced even more (by at least 5 dBA), down to approximately 58.1 dBA  $L_{dn}$ , which meets the 60 dBA  $L_{dn}$  standard.

Furthermore, according to the General Plan Noise Element Noise Compatibility Guidelines, exterior noise levels in residential areas adjacent to rail lines are acceptable up to 70 dBA  $L_{dn}$ , because the  $L_{dn}$  noise level is controlled by intermittent, loud events and does not reflect an ongoing level of 70 dBA  $L_{dn}$ . Therefore, the incorporation of mitigation required to reduce traffic noise from Stanley Boulevard would also reduce the noise levels from adjacent train-related events.

With the incorporation of the mitigation measures listed below, exterior noise levels at existing and proposed residential uses would be 60 dBA  $L_{dn}$  or less. Standard residential construction methods provide attenuation of at least 20 dBA; therefore, interior noise levels at residential uses are anticipated to be approximately 40 dBA  $L_{dn}$ , which meet the 45 dBA  $L_{dn}$  interior noise standard requirements.

Residential uses are proposed east of the OSC. Sources of noise at the OSC include a firing range, fire fighter training center, and facilities maintenance activities. As indicated in the Specific Plan, the OSC would be separated from the proposed residential uses by a local street and a minimum 20-foot-wide, bermed, and densely landscaped buffer to be located between the OSC and the street edge. As shown in Table 3.11-5, at Site LT-05, noise levels east of the access road (at the proposed residential boundary) are 57.6 dBA  $L_{dn}$ . This noise level meets the 60 dBA  $L_{dn}$  residential noise standard; therefore, no mitigation is necessary.

As shown by Table 3.11-3 through Table 3.11-5, the existing noise levels at the proposed commercial, recreational, industrial, public, and institutional land uses do not exceed 65 dBA  $L_{dn}$ . Therefore, ambient noise levels are compatible with those uses and do not exceed the noise standards for those non-residential uses.

#### **Proposed Parking Lots At Commercial Uses**

The predominant noise sources associated with parking lot activities include car doors slamming; cars starting; cars accelerating away from the parking stalls; car alarms being activated; brake squeal; and suspension squeal when vehicles pass over speed bumps. Activities at the parking lots would be sporadic in nature, occurring throughout the day with the highest concentration of activities during the peak morning and afternoon periods. Parking lot activities would generate an average hourly noise level of 57 dBA  $L_{eq}$  at a distance of 50 feet (Wieland 2007). Therefore, these noise levels would not exceed the 60 dBA  $L_{dn}$  residential standard. Proposed retail/commercial uses located adjacent to proposed residential uses would not exceed residential noise standards and would not generate a significant increase in noise levels over existing conditions.

#### **Proposed Rooftop Mechanical Equipment**

The specific types of commercial and light industrial uses that would be developed in the plan area have not yet been determined and the potential sources of noise associated with these types of uses can vary substantially. Stationary noise sources associated with these operations can be periodic or continuous and may contain tonal components, which commonly result in annoyance at lower levels. Primary noise sources typically would include mechanical building equipment (e.g., heating, ventilation, and air conditioning [HVAC]), property maintenance, landscaping, parking lots, trash collection, onsite truck circulation, and commercial deliveries.

According to the United States Environmental Protection Agency, noise attributable to mechanical building equipment has the potential to be a primary noise source associated with commercial or industrial uses. Equipment is often mounted on rooftops, located on the ground, or located within mechanical rooms shielded from direct public exposure. Associated noise sources could take the form of fans, pumps, air compressors, chillers, or cooling towers. Noise levels from HVAC equipment vary significantly depending on unit efficiency, size, and location, but generally range from 45 dBA to 70 dBA  $L_{eq}$  at a distance of 50 feet. With typical duty cycles of 40 percent to 60 percent, average day-night noise levels would range from 47 dBA to 73 dBA  $L_{dn}$  at 50 feet. Based on standard attenuation rate of 6 dB per doubling of distance for point sources, the operation of mechanical building equipment could result in the exposure of future noise-sensitive receptors within approximately 450 feet to noise levels that exceed the City's 60 dBA  $L_{dn}$  noise standard.

Overall, stationary source noise levels associated with commercial and retail operations in the plan area could potentially exceed the City of Pleasanton noise standards at nearby existing and future noise-sensitive receptors. Mitigation Measure NOI-4c is included to ensure that rooftop mechanical equipment associated with future commercial and industrial uses do not create impacts for residents.

### **Industrial and Public/Institutional Area**

The southeastern portion of the Specific Plan is designated as Industrial. This Industrial area would be separated from residential uses by El Charro Road. As shown by ambient noise readings on the industrial site (see Table 3.11-4) at Site ST-03, the average noise levels are 58.0 dBA, which meet the residential noise standard of 60 dBA  $L_{dn}$  and would not generate a significant increase in noise levels over existing conditions. Future industrial uses would be required to adhere to the City of Pleasanton Municipal Code noise standards. Furthermore, it is unlikely that industrial activities would be audible to future residents west of El Charro Road, as traffic noise would mask the majority of noise events from industrial sources.

The Public/Institutional area (OSC) is located just north of Busch Road (see Exhibit 2-3 in the Project Description section of this DEIR). As shown by the results of the ambient noise reading (see Table 3.11-5) at Site LT-05, the noise levels just east of the site are 57.6 dBA  $L_{dn}$ , which meets the residential noise standard of 60 dBA  $L_{dn}$  and would not generate a significant increase in noise levels over existing conditions. The Pleasanton Transfer Station and Recycling Center is located south of Busch Road (see Exhibit 2-3). As shown by the results of the ambient noise reading (see Table 3.11-3) at Site 4, the noise levels just north of the site are 59.8 dBA  $L_{eq}$ , which meets the residential noise standard of 60 dBA  $L_{dn}$ . Therefore, the continued operation of the Pleasanton Transfer Station and Recycling Center would not generate a significant impacts to future surrounding residential uses.

In conclusion, long-term, operational noise levels within the Plan Area would be within acceptable standards for each land use type with the exception of residential areas along Stanley Boulevard and Valley Avenue, which may experience noise levels above 60 dBA  $L_{dn}$ . However with the implementation of mitigation, noise levels would be reduced to acceptable levels and impacts would be less than significant.

### **Level of Significance Before Mitigation**

Potentially significant impact.

### **Mitigation Measures**

Implement Mitigation Measure NOI-3, together with:

- MM NOI-4a** A noise barrier shall be constructed between the proposed residential uses located north of Stanley Boulevard and the Union Pacific Railroad (UPRR) rail line and Stanley Boulevard. The noise barrier must break the line of sight between the residential uses, UPRR rail line, and Stanley Boulevard. The height of the noise barrier shall be designed to attenuate noise levels at the adjacent residences to 60 dBA  $L_{dn}$  or below and shall be determined as part of the acoustical impact analysis required in Mitigation Measure NOI-3.
- MM NOI-4b** A 50-foot landscaped buffer zone shall be constructed in between the proposed residential uses along Valley Avenue north of Boulder Street and Valley Avenue.
- MM NOI-4c** Specific development of proposed land uses shall be designed so that onsite mechanical equipment (heating, ventilation, and air conditioning units;

compressors; generators; etc.) and area source operations (loading docks, parking lots, etc.) are located at the furthest distance from and/or shielded from nearby noise-sensitive land uses.

### ***Level of Significance After Mitigation***

Less than significant impact.

### **Airport Noise Levels**

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**Impact NOI-5: Development and land use activities contemplated by the Specific Plan are located within an airport land use plan but would not expose people residing or working in the project area to excessive noise levels.**

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### ***Impact Analysis***

This impact discussion analyzes the potential for the nearby Livermore Municipal Airport to expose people residing or working in the project area to excessive noise levels.

Livermore Municipal Airport is located approximately 1.5 miles east of the closest developable portion of the Specific Plan area. As shown on Exhibit 3.11-2, the 60 dBA CNEL airport noise contour crosses the northeastern part of the Plan Area. The closest developable site within the Plan Area consists of the proposed campus office and retail overlay area north of Lake I. Within this area, aircraft-related noise exposure would be expected to be approximately 60 dBA CNEL or less (see Table 3.11-5). Individual aircraft operations associated with Livermore Municipal Airport would be audible at the site. As shown by the ambient reading for Site 3 (see Table 3.11-3 through Table 3.11-5), the noise from individual aircraft is generally overshadowed by the noise from traffic along El Charro Road. The noise reading at Site 5 shows that aircraft overflight can produce single event noise levels up to 79.7 dBA  $L_{max}$ . However, as shown from the long-term readings in Table 3.11-5, when averaged out over 24 hours (for CNEL or  $L_{dn}$  values), the average noise levels would be around 59 dBA  $L_{dn}$ , which agrees with the findings of the General Plan airport noise contours map. Although aircraft noise would be audible to future residents of the Specific Plan Area, noise levels from aircraft would not exceed 60 dBA CNEL and future residents would not be exposed to excessive airport noise levels. Impacts are considered to be less than significant.

### ***Level of Significance Before Mitigation***

Less than significant impact.

### ***Mitigation Measures***

No mitigation is necessary.

### ***Level of Significance After Mitigation***

Less than significant impact.

## 3.12 - Population and Housing

This section describes the existing population and housing and potential effects from implementation of the Specific Plan on the area and its surroundings. Descriptions and analysis in this section are based on population and housing information provided by the California Department of Finance, the California Employment Development Department, the Association of Bay Area Governments (ABAG), and the City of Pleasanton General Plan.

### 3.12.1 - Environmental Setting

#### Current Population, Housing, and Employment Estimates

The California Department of Finance estimated the population of the City of Pleasanton to be 73,067 as of January 1, 2014 (California Department of Finance 2014). Employment was estimated to be 36,000 by the California Department of Employment Development (California Department of Employment Development 2014) in July 2014. Population, housing, and employment characteristics for Pleasanton are summarized in Table 3.12-1.

**Table 3.12-1: Population, Housing, and Employment Characteristics (2012)**

Population	Housing Units	Persons per Household	Employment	Unemployed Persons
73,067	26,305	2.85	36,000	1,200

Source: California Department of Finance, 2014a, 2014b; California Department of Employment Development, 2013.

#### Historic Population Growth

The population of the City of Pleasanton has grown significantly since 1985. The City's population nearly doubled in the 25 years between 1985 and 2010. The City's population growth between 1985 and 2010 is summarized in Table 3.12-2.

**Table 3.12-2: City of Pleasanton Historic Population Growth**

Year	Population	Change From Previous (percent)
1985	38,750	—
1990	50,570	30.5
1995	55,158	9.1
2000	63,654	15.4
2005	66,890	5.1
2010	70,285	5.1
Net Change	31,535	81.4
Compound Annual Growth Rate	2.41	—

Source: California Department of Finance, 1990, 2007a, 2011, 2012.

### Population Growth Projections

ABAG publishes population growth projections for every city and county in the San Francisco Bay Area. ABAG’s population growth projections are used in regional planning efforts for issues such as air quality and affordable housing. Table 3.12-3 summarizes the population growth projections within the city boundaries from 2015 to 2035. As shown in the table, ABAG projects the population of Pleasanton to increase by 13,400 persons between 2015 and 2035, which translates to an increase of 18.6 percent.

**Table 3.12-3: City of Pleasanton Population Growth Projections**

Year	Population	Change From Previous (Percent)
2015	72,200	—
2020	75,600	4.7
2025	78,800	4.2
2030	82,300	4.4
2035	85,600	4.0
Net Change	13,400	18.6
Compound Annual Growth Rate	0.85	—

Source: Association of Bay Area Governments, 2009.

### Employment Growth Projections

According to the Final Forecast of Jobs, Population and Housing prepared as part of ABAG’s Plan Bay Area, employment growth projections for Pleasanton are expected to reach 69,640 jobs by 2040, representing a 28-percent (15,300 jobs) increase over the 54,340 jobs reported by ABAG in 2010.

### Regional Housing Needs Allocation

State law requires local governments to provide housing for persons of all income ranges. The State has prioritized housing production by requiring cities and counties to periodically update the housing element of their General Plan, which is the document that outlines the community’s long-term growth strategy. The amount of housing that must be accounted for in a local housing element is determined through a process called the Regional Housing Needs Allocation (RHNA). In the RHNA process, the State gives each region a number representing the amount of housing needed, based on existing need and expected population growth.

In the nine-county San Francisco Bay Area region, ABAG is responsible for assigning each city and county allocation targets for housing by income range. The allocations are based on several weighted factors, including projected household growth, existing and projected employment, and proximity to public transit.

Local governments then revise their housing elements to identify development sites and housing policies that will allow the community to meet its housing needs. ABAG’s current RHNA was issued



in June 2013 and guides the production of affordable housing from 2014 through 2022. The City’s 2015–2023 Housing Element Update was certified in January 2015.

Table 3.12-4 and Table 3.12-5 identify Pleasanton’s housing allocation.

**Table 3.12-4: Past Regional Housing Needs Allocation (2007–2014)**

Income Category	Dwelling Unit Allocation
Very Low (Up to 50% of Alameda County’s median income)	1,076
Low (Up to 80% of Alameda County’s median income)	728
Moderate (Up to 120% of Alameda County’s median income)	720
Above Moderate (Above 120% of Alameda County’s median income)	753
Total	3,277
Source: Association of Bay Area Governments, 2008.	

**Table 3.12-5: Current Regional Housing Needs Allocation (2014–2022)**

Income Category	Dwelling Unit Allocation
Very Low (Up to 50% of Alameda County’s median income)	716
Low (Up to 80% of Alameda County’s median income)	391
Moderate (Up to 120% of Alameda County’s median income)	407
Above Moderate (Above 120% of Alameda County’s median income)	553
Total	2,067
Source: Association of Bay Area Governments, 2013.	

**Potential Housing Sites**

Consistent with state law requirements, the City recently updated the Housing Element to reflect the 2014-2022 RHNA. The updated Housing Element was certified by the California Department of Housing and Community Development on January 30, 2015.

As indicated in Table 3.12-5, for the 2014-2022 planning cycle, the City needs to provide sites for 2,067 housing units. The City anticipates that 3,243 housing units could be accommodated on sites

available for residential development during the 2014–2022 cycle. Housing sites within the Plan Area were not counted towards meeting the City’s 2014–2022 RHNA requirements.

### 3.12.2 - Regulatory Framework

#### Local

##### *City of Pleasanton*

###### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs related to population and housing:

###### Land Use Element

- **Policy 9:** Develop new housing in infill and peripheral areas which are adjacent to existing residential development, near transportation hubs or local-serving commercial areas.
- **Policy 10:** Provide flexibility in residential development standards and housing type consistent with the desired community character.
- **Policy 13:** Ensure that neighborhood, community, and regional commercial centers provide goods and services needed by residents and businesses of Pleasanton and its market area.
  - o **Program 13.1:** Zone sufficient land for neighborhood, community, and regional commercial uses to support Pleasanton’s increasing business activity.
- **Policy 23:** Regulate the number of housing units approved each year to adequately plan for infrastructure and assure City residents of a predictable growth rate.
  - o **Program 23.1:** Review and modify the City’s Growth Management Program to ensure an orderly process for developing residential units to ensure that the City’s goals for affordable housing and energy sustainability are met.

###### Housing Element

- **Goal 2:** Provide residential densities capable of accommodating housing affordable to extremely low-, low- and very-low-income households while taking into account the character and development pattern of the surrounding area.
  - **Policy 1:** At a minimum, maintain the amount of high-density residential acreage currently designated on the General Plan Map and permitting high density housing.
- **Goal 4:** Encourage the production of market-rate moderate-income ownership housing and assisted ownership housing affordable to low- and very-low-income households.
- **Goal 5:** Produce and retain a sufficient number of housing units affordable to extremely low-, low- and very-low-income households to address the City’s responsibility for meeting the needs of Pleasanton’s workforce, families, and residents, including those with special needs.
- **Goal 6:** Promote the production of housing affordable to extremely low-, low- and very-low-income households by actively working with and creating incentives for non-profit housing developers.
  - **Policy 9:** Support the development and rehabilitation of housing affordable to extremely low-, low- and very-low-income households and review infrastructure needs.
  - **Policy 11:** Strive toward meeting Pleasanton’s share of regional housing needs, as defined by the Regional Housing Needs Determination (RHND).

- **Program 11.1:** Maintain zoning adequate to accommodate Pleasanton’s share of the regional housing need for all income levels. Sites designated High Density Residential or Mixed Use shall be developed at a minimum density of 30 units per acre, and comport with the development standards and design guidelines set forth in Program 9.7.
- **Program 11.3:** Strive to construct, rehabilitate, and conserve the City’s regional share of housing within the constraints of available infrastructure, traffic, air quality, and financial limits, by the conclusion of the current Regional Housing Needs Determination period—in 2014.
- **Goal 11:** Manage residential growth in an orderly fashion while enabling Pleasanton to meet its housing needs.
- **Goal 14:** Provide adequate locations for housing of all types and in sufficient quantities to meet Pleasanton’s housing needs.
  - **Policy 35:** Disperse high-density housing throughout the community, in areas near public transit, major thoroughfares, shopping, and employment centers.
- **Goal 18:** Promote resource conservation and environmental protection for new and existing housing.
  - **Policy 44:** Preserve and enhance environmental quality in conjunction with the development of housing, including additions and remodels.
    - **Program 45.5:** The City is committed to work in good faith with non-profit and for-profit developers in the East Pleasanton Specific Plan area during the specific plan process to secure property for the development of family housing affordable to low- and very-low-income households.

#### *Municipal Code*

Section 17.36 of the Pleasanton Municipal Code contains the Growth Management Program. The Growth Management Program establishes an annual limit for new residential units consistent with the RHNA, requires the apportionment of yearly total new residential units to categories of projects (e.g., affordable project, major project, small project), and defines a process for obtaining an allocation under the program.

### **3.12.3 - Methodology**

Impacts on population and housing were assessed by reviewing existing and anticipated population and housing figures provided by the California Department of Finance, the City of Pleasanton General Plan, and ABAG. The proposed Base Plan’s impacts were evaluated by determining their consistency with these estimates and projections.

#### **Thresholds of Significance**

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, population and housing impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would:

- 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).

- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. (Refer to Section 7, Effects Found not to be Significant.)
- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. (Refer to Section 7, Effects Found not to be Significant.)

### 3.12.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Population Inducement

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**Impact POP-1: Development and land use activities contemplated by the Specific Plan would not induce substantial population growth.**

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##### *Impact Analysis*

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss the ways in which the proposed Base Plan could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines provide the example of a major expansion of a wastewater treatment plant that may allow for more construction within the service area. The CEQA Guidelines also note that the evaluation of growth inducement should consider the characteristics of a project that may encourage or facilitate other activities that could significantly affect the environment.

This impact analysis will first discuss the potential for direct and indirect growth inducement and then address consistency with regional population and growth projections.

##### *Direct and Indirect Growth*

Direct growth consists of activities that directly facilitate population growth. The construction of new dwelling units is considered an activity that directly results in population growth. Indirect growth inducements consist of activities that in and of themselves do not facilitate growth, but instead indirectly cause growth. Examples include the creation of new jobs in a sparsely populated area that results in workers moving into the area or the removal of a physical barrier to growth, such as the extension of a sewer service to an unserved area.

A key consideration in evaluating growth inducement is whether the activity in question constitutes “planned growth.” A residential project that is consistent with the underlying General Plan and zoning designations would generally be considered planned growth because it was previously contemplated by long-range documents and, thus, would not be deemed to have a significant growth-inducing effect. Likewise, a project that requires a General Plan Amendment and re-zone to develop more intense uses than are currently allowed may be considered to have a substantial growth-inducing effect because such intensity was not contemplated by the applicable long-range documents. It should be noted that these are hypothetical examples and conclusions about the potential for growth inducement will vary on a case-by-case basis.

The Base Plan consists of the implementation of the East Pleasanton Specific Plan (Specific Plan) and related development and land uses. The General Plan contemplated future development of the Specific Plan Area for “commercial, residential, and office/industrial uses, as well as use of lakes for flood protection, groundwater recharge, habitat, and recreation purposes” inclusive of 4.15 million square feet of building space. Program 6.1 of the General Plan directs the City to prepare a specific plan for the East Pleasanton area and indicates that while the General Plan Map provides several types of land use that may be considered in the specific planning process, no entitlement to any future development of land is conferred. The General Plan Map included such uses as community facilities, high-density residential, business park, retail/highway/service commercial business and professional offices, parks and recreation, and general and limited industrial.

The Specific Plan is a tool for the systematic implementation of the Pleasanton General Plan and establishes a link between the policies of the General Plan and the individual development proposals in the Plan Area. Thus, development and land use activities that occur within the Specific Plan boundaries that are consistent with the Specific Plan are inherently “planned growth.” As such, the development of housing within the East Pleasanton Plan Area would not be considered growth-inducing.

Development and land use activities contemplated by the Specific Plan would include the expansion or redevelopment of roads, potable water, recycled water, wastewater, and stormwater facilities that would facilitate development of the Specific Plan land uses. However, because development of the Specific Plan has been contemplated in the General Plan, infrastructure expansion and growth has been planned for and would not be considered substantial indirect growth.

Implementation of the Specific Plan would result in land uses that would generate an estimated 3,866 employment opportunities. Existing unemployment in Pleasanton is 1,400 people, and in Alameda County, it is 57,800 people. Based on the unemployment figures in the City and County, there is sufficient work force available to staff the newly created jobs as a result of the implementation of the Specific Plan. Furthermore, ABAG projects that employment in the City of Pleasanton will increase by 15,300 jobs by the year 2040. The Specific Plan’s potential employment growth is well within this projection. Therefore, indirect population growth impacts related to increased employment opportunities would be less than significant.

#### *Consistency with Regional Growth Projections*

Evaluating consistency with regional growth projections is a second way for assessing growth inducement potential, particularly for long-range planning documents such as a Specific Plan. In the nine-county San Francisco Bay region, ABAG oversees regional growth forecasts and regularly issues updates to Projections, its official population and employment estimate document. ABAG’s forecasts are used in various regional planning activities, including air quality management and affordable housing strategies.

Development of the Plan Area pursuant to the Specific Plan would result in the construction of up to 1,300 housing units. Assuming a total of 3.2 persons per single-family household, the estimated population living in the Plan Area under buildout conditions would be approximately 4,160 residents. Currently, the population of the City is 73,067. As such, new residents within the Plan Area would

represent an increase of approximately 5.9 percent of the City’s current population. If local population growth continues as projected by ABAG, in 2025 the population of the City would be 78,800 residents. With the implementation of the proposed Specific Plan, the population of the City would total 77,227, which is less than the population projected by ABAG in 2025. As such, the population increase of the Specific Plan alone would not exceed ABAG projections and impacts would be less than significant.

*Regional Housing Needs Allocation*

As indicated in Table 3.12-5, for the 2014-2022 planning cycle, the City needs to provide an additional 2,067 housing units. As shown in the updated Housing Element, the City anticipates that 3,243 housing units could be accommodated on sites entitled or approved for residential development or on underutilized sites zoned as residential. As such, the City is expected to meet its RHNA during the 2014-2022 cycle without the potential housing development in the Plan Area.

At buildout, the Specific Plan would include 1,300 residential units consisting of single-family detached and attached homes with densities ranging from less than five to 11 units per acre. As such, the Base Plan’s residential development would be consistent with local and regional housing strategies. Impacts would be less than significant.

***Level of Significance Before Mitigation***

Less than significant impact.

***Mitigation Measures***

No mitigation is necessary.

***Level of Significance After Mitigation***

Less than significant impact.

## 3.13 - Public Services and Recreation

### 3.13.1 - Introduction

This section describes the existing public services and recreation setting and potential effects from the implementation of the Specific Plan within the Plan Area and its surroundings. Descriptions and analysis in this section are based on information provided by the City of Pleasanton General Plan, the California Department of Education, and the East Bay Regional Parks District. Additional information was provided through correspondence with the Livermore-Pleasanton Fire Department and the Pleasanton Police Department (Appendix G).

### 3.13.2 - Environmental Setting

#### Fire Protection and Emergency Medical Services

The Livermore-Pleasanton Fire Department (Fire Department) provides fire protection and emergency medical services (EMS) to a 55-square-mile area encompassing the City of Livermore and the City of Pleasanton; Pleasanton Ridge; Lawrence Livermore National Laboratory; and unincorporated areas of Alameda County including Castlewood and Happy Valley. The Fire Department is headquartered at Station #1, located at 3560 Nevada Street in Pleasanton.

#### *Stations*

The Fire Department maintains 10 stations and one training center. The training center and five of the stations are located in Pleasanton, fielding an on-duty force of 18 personnel per day. The remaining five fire stations are located in Livermore. Station No. 1, at 3560 Nevada Street, and Station No. 3, at 3200 Santa Rita Road are the two fire stations closest to the Plan Area.

#### *Apparatus*

The Fire Department operates a total of 52 vehicles. These include 10 fire prevention vehicles, 12 Type I fire engines, three Type III vehicles, eight Type IV vehicles, two ladder trucks, and seven utility vehicles such as rescue vehicles and a volunteer van.

#### *Staffing*

According to the Pleasanton General Plan, the Fire District employs 117 full-time personnel, 24 reserve personnel, and 36 volunteer personnel. All firefighters are trained Emergency Medical Technicians and State Certified Firefighters I and II with specialized defibrillator training. A total of 53 personnel are advanced life support paramedics. As of 2013, the Fire District had 0.68 sworn firefighter per 1,000 residents within its service area (City of Pleasanton 2009).

#### *Response Times and Protocols*

The majority of the City lies within a 5-minute travel time from one of the five fire stations. The City requires developments located outside the 5-minute travel time or located in Special Fire Protection Areas, such as the Specific Plan Area, to provide additional fire mitigation measures, which include, at a minimum, automatic fire sprinkler systems (City of Pleasanton 2009).

The Fire District's goal is an overall response time of 7 minutes, 90 percent of the time. When the first units for a structure fire are dispatched from one of the staffed emergency response companies, the three closest engines, a ladder truck, and the shift Battalion Chief are automatically assigned. In addition, a private sector medic ambulance can be dispatched in the event one of the occupants of the structure or Fire District personnel needs medical assistance at the scene (City of Pleasanton 2009).

In 2012, the Fire District responded to 11,011 calls for assistance. According to the Pleasanton General Plan, the Fire District's median response time for urban areas is 5 minutes and 6 seconds, with arrival on the scene of an emergency incident within 7 minutes from the time of dispatch over 90 percent of the time. These response times exclude dispatch and turnout times, and indicate that the City is currently operating in compliance with the stated goal for overall response time.

### ***Mutual Aid***

The Fire Department is responsible for fire protection and suppression for all areas within the city limits, in addition to providing contractual services in a number of developed areas outside the city limits, including Happy Valley, the Remen Tract, and the Castlewood Country Club. For larger structure and wildland fires, the Fire Department participates in the Alameda County and statewide fire mutual aid agreements, which provide for additional fire suppression services, personnel, and support equipment. The Department provides Fire and EMS services to the Veterans Hospital-Livermore by contract.

### ***ISO Rating***

The Insurance Services Office (ISO) Public Protection Classification Program currently rates the Fire District a 3 on a scale of 1 to 10 for urban areas, of which 1 is the highest possible protection rating and 10 is the lowest. The ISO rating measures individual fire protection agencies against a Fire Suppression Rating Schedule, which includes such criteria as facilities and support for handling and dispatching fire alarms, first-alarm response and initial attack, and adequacy of local water supply for fire-suppression purposes. The ISO ratings are used to establish fire insurance premiums. Only 5 percent of the more than 44,000 fire agencies in the United States received an ISO 2 rating or higher.

### ***Emergency Medical Response***

Of the 5,005 emergency responses undertaken in Pleasanton by the Fire Department in 2012, 3,458 responses (or 68 percent) were calls for medical attention. The Fire Department is the primary first responder to these calls. All fire station companies include a State-licensed paramedic (who is also a captain, engineer, or firefighter) on every shift, while all firefighters are trained as Emergency Medical Technicians and paramedics. Field personnel can provide medical interventions for both adult and pediatric patients suffering from a multitude of conditions ranging from medical conditions to traumatic injuries. One ambulance, operated by American Medical Response, is located in Pleasanton on Francisco Street.

### **Police Protection**

The Pleasanton Police Department (Police Department) provides police protection within the Pleasanton city limits.



**Police Facilities**

The Police Department is currently headquartered at 4833 Bernal Avenue, Pleasanton, approximately 1.6 miles from the Plan Area.

**Organization, Staffing, and Resources**

The Police Department contains three divisions: Patrol Operations, Professional Standards, and Investigations and Services.

The Patrol Operations Division consists of the Chief of Police, 62 sworn officers, five community service officers and one animal services officer. The Patrol Operations Division not only patrols the City, but it also includes a Canine Division, Special Weapons and Tactics Team, and Reserve Officer Programs. A Special Operations Unit is responsible for traffic, parking, special events, permits, and animal services.

The Professional Standards Division maintains responsibility for the Department’s Budget, Policy and Procedures manual; Internal Affairs Investigations; special projects; oversight of state and federal grants; the Personnel-in-Training Unit; and the Volunteer-in-Policing service program.

The Investigations and Services Division, with 18 sworn officers and 27 civilian personnel, is composed of the Criminal Investigations Unit, Youth and Community Services Unit, the Professional Standards Unit and Support Services. Criminal Investigations includes burglary, technology-associated crimes, fraud, auto theft, crimes against persons, and juvenile crimes.

**Police Activity**

The Police Department responded to more than 65,826 calls for service in 2014. Table 3.13-1 provides a summary of police activities for 2010 through 2014.

**Table 3.13-1: Police Activity Summary (2010–2014)**

Category	2010	2011	2012	2013	2014
Citizen Initiated	38,251	35,105	33,857	34,755	36,020
Officer Initiated	40,027	37,125	28,459	26,614	29,806
<b>Total</b>	<b>78,278</b>	<b>72,230</b>	<b>62,316</b>	<b>61,369</b>	<b>65,826</b>
Source: Pleasant Police Department, 2013.					

**Response Times**

The average response time for general service calls in 2014 was 18 minutes and 58 seconds per call, compared with 18 minutes and 36 seconds in 2013. The average response time for emergency calls in 2014 was 3 minutes and 30 seconds, compared with 3 minutes and 54 seconds in 2013. General Plan Policy 27 of the Public Safety Element sets the goal of an average police response call time of 4 minutes for emergency calls and 16 minutes for general service calls, indicating that the City does not currently meet the operational goal for average response time to general service calls, but does meet it for emergency service calls.

**Schools**

The Pleasanton Unified School District (School District) provides K-12 education to the City of Pleasanton.

**Local Schools**

The School District serves approximately 14,800 students in nine elementary schools, three middle schools, two comprehensive high schools, and one continuation high school.

Table 3.13-2 summarizes the four schools that currently serve the Plan Area, based on most recent information provided by the California Department of Education.

**Table 3.13-2: School Enrollment (2013–2014)**

School	Grades	Enrollment	Full-Time Equivalent Teachers	Pupil-Teacher Ratio
Alisal Elementary	K-5	626	31	20.4
Henry P. Mohr Elementary	K-5	697	32	21.2
Harvest Park Middle	6-8	1,222	50.9	23.8
Amador Valley High	9-12	2,634	103.2	25.5

Notes:  
 Data for teachers is based on data from the 2011-2012 school year, the most recent available.  
 Source: Education Data Partnership 2015.

**Library Services**

The Pleasanton Library is located at 400 Old Bernal Avenue in Pleasanton. The Pleasanton Library opened in 1988 and totals 30,000 square feet, including 160,000 catalogued books, CDs, books on tape, eBooks, DVDs, and other items (City of Pleasanton 2009). The Pleasanton Public Library Space Needs Assessment (2004) report documented the need for approximately 72,800 square feet of space to meet the long-term library service needs of the Pleasanton Community and a per capita rate of 3.7 volumes.

**Parks**

The City of Pleasanton maintains 42 community and neighborhood parks, approximately 24 miles of trails, and over 800 acres of undeveloped open space. Of the 42 parks, 26 are neighborhood parks (totaling 133 acres) and 14 are community parks (totaling 209 acres). Undeveloped open space consists of the 237-acre Augustin Bernal Park, Callippe Preserve Open Space, Bonde Ranch Open Space, and Gold Creek Open Space.

General Plan Program 10.18 of the Public Facilities and Community Programs Element establishes the standard of 5 acres of neighborhood or community parks per 1,000 residents. The City of Pleasanton currently provides about 5.1 acres of improved neighborhood and community parks per 1,000 residents (City of Pleasanton 2009).

The General Plan identifies an approximately 38-acre community park to be located within the Plan Area. The City has not yet determined the functions of this future park.

Existing park facilities near the Plan Area are summarized below.

### ***Amaral Neighborhood Park***

Amaral Neighborhood Park is located at 3400 Dennis Drive at the northwest corner of the Plan Area. The park consists of 5 acres and contains a baseball field, basketball courts, picnic areas, a tot play area, and a youth play area.

### ***BMX Facility***

The BMX Facility is located at 3320 Stanley Boulevard and is considered a Community Park. Its 3.65 acres contain a BMX track, picnic area, and restrooms.

### **Shadow Cliffs Recreational Area**

Shadow Cliffs Recreational Area, located immediately south of the Plan Area at 2500 Stanley Boulevard, is operated by the East Bay Regional Parks District (EBRPD). The park's 266 acres consist of former quarry lands and include an 80-acre lake, picnic grounds, parking areas, and an undeveloped arroyo with a chain of smaller lakes and ponds. The Recreational Area offers swimming, fishing, boating, picnicking, and bird watching activities (EBRPD 2012).

### **Iron Horse Trail**

The multi-use Iron Horse Trail is an approximately 30-mile-long, Class I paved trail stretching from Pleasanton to Concord along the former Southern Pacific Railroad San Ramon Branch Line right-of-way. The trail is located to the west of the Plan Area where it runs between Santa Rita Road and Valley Avenue in a northwest-southeast direction (EBRPD 2012). Ultimately, the Iron Horse Trail will extend 55 miles in length from Martinez in the north, through Pleasanton and the Specific Plan Area, to Livermore to the east. The EBRPD has plans to extend the Iron Horse Trail to ultimately connect to an existing sidewalk/trail along the south side of Stanley Boulevard and continue east to Livermore.

### **Community Facilities**

The City of Pleasanton Operations and Service Center (OSC) at 3333 Busch Road is the only community facility in the Plan Area vicinity. The OSC houses the Operations and Service Department, comprising approximately 100 employees who are responsible for maintaining the City's infrastructure, including facility and fleet maintenance, park maintenance, sewer, signs and streetlights, storm drains, and streets. Fire and police training centers are also present, inclusive of a training tower and gun range (City of Pleasanton 2009).

### 3.13.3 - Regulatory Framework

#### State

##### ***California Fire Code and California Building Code***

The International Fire Code and the International Building Code, established by the International Code Council (ICC) and amended by the State of California, prescribe performance characteristics and materials to be used to achieve acceptable levels of fire protection.

##### ***Leroy F. Greene School Facilities Act of 1998***

The California State Legislature enacted the Leroy F. Green School Facilities Act of 1998 (Senate Bill 50), which made significant amendments to existing state law governing school fees. Senate Bill 50 prohibited state or local agencies from imposing school impact mitigation fees, dedications, or other requirements in excess of those provided in the statute. The legislation also prohibited local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any project.

##### ***East Bay Regional Park District Master Plan***

The EBRPD Master Plan is the District’s official guide for planning its future facilities. It was originally adopted in 1973 and is periodically updated to reflect changing circumstances. The Master Plan is intended to maintain a balance between the need to protect and conserve natural resources with the need for recreational use of parklands. It also contains a “Master Plan Map” that graphically illustrates the District’s existing and planned open space areas, parks and trails. With regard to the Plan Area, the EBRPD Master Plan Map designates area within the Chain of Lakes as “Potential EBRPD Parklands.” It does not however provide any additional guidance.

#### Local

##### ***City of Pleasanton***

###### *General Plan*

The City of Pleasanton General Plan sets forth the following goals, policies, and programs that are relevant to public services and recreation:

###### **Public Safety Element**

- **Goal 3:** Minimize the risks to lives, property, and the environment due to fire hazards within the Planning Area, and provide the highest quality of emergency response service feasible.
  - **Policy 8:** Provide an adequate level of fire and emergency medical equipment and personnel to protect the community.
    - **Program 8.2:** Require new development to pay for fire safety improvement needs generated by the new development.
  - **Policy 9:** Strive to enhance emergency medical response in Pleasanton.
  - **Policy 10:** Strive to respond to all emergency fire-related calls within seven minutes of the time the call for service is received 90 percent of the time.
    - **Program 10.1:** Deny proposed developments not within a five-minute travel time of a Fire Station unless acceptable mitigations are provided.

- **Program 10.2:** Develop a system of fire hazard mitigations based on the probability of occurrence and number of people at risk.
- **Policy 11:** Maintain or improve the City’s existing Insurance Services Office fire-protection rating of three.
  - **Program 11.1:** Require developers to finance and construct necessary water facilities for their projects when they develop.
  - **Program 11.2:** Require that all new developments be provided with sufficient fire-flow facilities at the time of development at least at the level specified by the Fire Chief.
- **Policy 13:** Require fire mitigation measures in new and existing developments that reduce the fire threat to the structure and occupants. Require development outside the five-minute travel time and in Special Fire Protection Areas to provide effective fire prevention measures.
  - **Program 13.1:** Require the installation of building and fire code compliant fire-detection and alarm equipment in residential and commercial structures.
  - **Program 13.2:** Install automatic fire sprinkler protection in certain structures as required by adopted City ordinances.
  - **Program 13.3:** Encourage the installation of automatic fire-sprinkler systems in all new construction.
  - **Program 13.4:** Provide adequate fire-equipment access to all structures in the city.
  - **Program 13.5:** Partner with the California Department of Forestry and Fire Prevention and Firewise Communities to identify measures that reduce the fire threat in Special Fire Protection Areas.
- **Goal 8:** Provide the highest quality of Police services within the city.
  - **Policy 26:** Work in collaboration with the community to provide the highest level of Police services, making Pleasanton a safer place to live, work and play.
    - **Program 26.2:** Require new development to pay for police safety improvements required of that development.
  - **Policy 27:** Strive for a response time of an average of four minutes for emergency calls, and sixteen minutes for general service calls.
  - **Policy 29:** Seek ways to reduce police service demands through the contemporary practice of “Crime Prevention Through Environmental Design.”
    - **Program 29.1:** Incorporate crime reduction and public safety response features in the design and planning of private and public development.
    - **Program 29.2:** Submit all discretionary use permits to the Police Department for analysis of, and recommendations to reduce, impacts on police services.
- **Goal 4:** Promote lifelong learning.
  - **Policy 7:** Encourage and support high quality public and private educational facilities in Pleasanton and facilitate lifelong educational opportunities for all ages.
    - **Program 7.1:** Work with the School District to locate school sites to preserve the quality of life of existing and new neighborhoods.
- **Goal 5:** Enhance the quality of Pleasanton library services.
  - **Policy 9:** Provide sufficient sites and improvements for a full range of library facilities to serve existing and future development.

- **Goal 6:** Achieve a complete park and recreation system featuring a wide variety of opportunities to serve the public need.
  - **Policy 10:** Provide sufficient parkland and recreational activities to accommodate existing and future needs of residents, workers, and visitors.
    - **Program 10.1:** Acquire all park lands shown on the General Plan Map and retain them for permanent public open space through the City’s Park Dedication Ordinance and other means.
    - **Program 10.2:** Encourage developers to dedicate public park acreage in areas designated for park use on the General Plan Map rather than contribute in-lieu fees.
    - **Program 10.3:** Disperse neighborhood and community parks throughout the city and combine them with areas of natural, scenic, or cultural resources.
    - **Program 10.4:** Provide a wide variety of active and passive recreational facilities to accommodate the needs of all ages in a diverse and inclusive community. Conduct periodic public surveys to ascertain the park and recreational needs of the community.
    - **Program 10.5:** Develop neighborhood, community, and regional parks in accordance with the General Plan goals and the land use diagram.
    - **Program 10.6:** Provide additional lighted facilities in appropriate park locations to accommodate the community’s nighttime recreational needs. Potential new sites include the Bernal Property, Staples Ranch Community Park or another community park.
    - **Program 10.7:** Provide community parks with adequate parking facilities to the greatest extent possible.
    - **Program 10.8:** Locate parks within one-half mile of the residential area they serve. To the greatest extent possible, such parks should not be separated from the neighborhood they serve by major arterials, commercial centers, and topographical or other features which create a direct or perceived physical barrier to the park.
    - **Program 10.13:** Encourage the establishment of recreational opportunities for business park employees in conjunction with the development of business parks.
    - **Program 10.14:** Continue to support non-traditional sports which serve the public need and investigate opportunities to provide facilities for them (non-traditional sports might include skateboarding, roller-blading, rock-climbing, BMX, racquetball, sports facilities for the disabled, etc.).
    - **Program 10.15:** Explore the construction of additional indoor recreation facilities.
    - **Program 10.18:** Maintain at least the standard of 5 acres of neighborhood or community parks per 1,000 people.
    - **Program 10.19:** Design Community Parks to better integrate active recreation, leisure recreation, and open space in ways that will be more functional for all three uses.
    - **Program 10.20:** Design sports fields in ways that will maximize flexibility and that will allow sports fields to evolve over time to meet the changing sports needs of the community.
    - **Program 10.22:** Provide trails, bike routes or pedestrian walkways to connect the parks and recreational facilities throughout Pleasanton.

### 3.13.4 - Methodology

FirstCarbon Solutions evaluated potential impacts on public services and recreation through review of the General Plan, and consultation with the Livermore-Pleasanton Fire Department and the Pleasanton Police Department.

#### Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, public services and utilities impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would:

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
- b) Police Protection
- c) Schools
- d) Parks
- e) Other public facilities

In addition, to determine whether impacts to recreation are significant environmental effects, the following questions are analyzed and evaluated:

- f) 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?
- g) 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?

### 3.13.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Fire Protection

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**Impact PSR-1:      Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded fire facilities or adverse impacts on fire protection.**

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#### *Impact Analysis*

The Plan Area boundaries are within 1 mile of two fully staffed fire stations. Station Number 1 is located south of the Plan Area on Nevada Street and Station Number 3 is located west of the Plan

Area on Santa Rita Road. As illustrated on General Plan Figure 5-6, the majority of the Plan Area is located in a Special Fire Protection Area, where travel time from the nearest Fire Department is generally over 5 minutes. This is likely due to the existing lack of access and circulation in the Plan Area. The improved access provided by the Specific Plan's network of streets and roadways would reduce travel time within the Plan Area.

Generally, the risk of structural fire within the Plan Area would be low, as all structural improvements would be required to comply with the standards contained in the current California Fire and Building Codes requiring modern construction methods and flame retardant building materials.

Development of the Plan Area would increase demand for fire protection and emergency medical services. To address this need, new water trunk lines would be constructed along El Charro Road, Busch Road and Boulder Street, and hydrants would be installed at locations adjoining new development. In addition, individual developers would be required to provide supporting facilities of appropriate size to provide a minimum capacity for residential use of 1,500 gallons per minute (gpm), and commercial use of 2,500 gpm, at a minimum of 20 pounds per square inch sustained for 2 hours. Hydrants are generally installed at 400-foot intervals. The Specific Plan would also increase access and circulation for fire and emergency response in the Plan Area through the provision of additional access points and roadways.

As indicated in Specific Plan Chapter Public Infrastructure and Services, new development would be required to comply with all City fire protection standards and regulations. In addition, as indicated by General Plan Program 8.2, new development is required to pay for any needed fire safety improvements. The City would collect fair share impact fees from each new development as part of the entitlement process.

General Plan Program 10.1 indicates that proposed developments not within a five-minute travel time of a fire station should be denied unless acceptable mitigations are provided, and Program 10.2 requires that a system of fire hazard mitigations be developed based on the probability of occurrence and the number of people at risk.

The Fire Department would review each project proposed within the Plan Area to ensure that all new improvements meet state and local Building and Fire Code requirements. During this review, additional design measures potentially needed to compensate for travel time beyond five minutes would be required of the project in accordance with General Plan Program 10.1 and 10.2. Further, once operational, projects within the Plan Area would be subject to the Fire Department's inspection program, which would ensure compliance with applicable state and local standards, including requirements for emergency access.

The Fire Department has not indicated that the proposed Base Plan would result in the construction of new or the expansion of existing Fire Department facilities. Therefore, impacts associated with Fire Department facilities will be less than significant. The potential need for additional fire staffing at existing stations is outside the scope of this EIR, as it does not involve physical impacts on the environment. Rather, this impact is most appropriately addressed through other mechanisms such as Conditions of Approval, Development Agreements, or other means.



In summary, the Base Plan would not result in a need for new or expanded fire protection facilities that have the potential to result in physical impacts on the environment. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant Impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Police Protection**

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**Impact PSR-2:           Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded police facilities that result in physical impacts on the environment.**

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**Impact Analysis**

New land uses developed within the Plan Area would increase demand for police services. The Plan Area is within 2 miles of Police Department’s headquarters on Bernal Avenue. Correspondence from the Police Department indicates that emergency response services for the Plan Area could be provided from existing stations and would not require the construction of new facilities or the expansion of existing facilities (Spiller, pers. comm.).

Program 26.2 of the General Plan requires that new development pay for police safety improvements required of that development. In addition, General Plan Program 29.1 requires that crime reduction and public safety response features are incorporated into the design and planning of private and public development, and Program 29.2 requires that all discretionary use permits are submitted to the Police Department for analysis and recommendations to reduce impacts on police services. Developments in the Plan Area would be required to implement these General Plan Programs.

Development of the Plan Area would increase the need for police services. Additional staffing would be required to ensure adequate response times are needed. The need for additional police staffing is outside the scope of this EIR, as it does not involve physical impacts on the environment. Rather, this impact is most appropriately addressed through other mechanisms such as Conditions of Approval, Development Agreements, or other means.

In summary, the Base Plan would not result in a need for new or expanded police protection facilities that have the potential to result in physical impacts on the environment. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Schools**


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**Impact PSR-3: Development and land use activities contemplated by the Specific Plan may require the provision of new or physically altered school facilities the construction of which would not result in significant environmental impacts.**

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**Impact Analysis**

The development of 1,300 additional dwelling units within the Plan Area would increase K-12 enrollment. According to student yield factors used in the Pleasanton Unified School District's (School District's) Fall 2011-Fall 2012 Student Population Projections report, the Specific Plan would result in an approximate 1,378 additional K-12 students.

**Table 3.13-3: Plan Area Additional K-12 Students**

Dwelling Type	Number of Units	K-12 Student Yield Factor	Total
Single-Family	1,300	1.060	1,378
Source: Pleasanton Unified School District 2012.			

The School District provides K-12 education to the City of Pleasanton and has expressed the need for a new elementary school within the Plan Area. A potential school site has been identified as an "overlay" use at the planned location of the 13-acre active recreation park just south of Lake I (see Exhibit 2-4). In the event the District chooses to proceed with the school, a 7.5-acre joint use elementary school/5.5-acre city neighborhood park would be developed. This joint use facility would replace the 13-acre active recreation park concept, and an active park would no longer be part of the Specific Plan.

Development of the school within the Plan Area would be required to implement all applicable mitigation measures included in this document, and therefore its construction would not result in any significant environmental impacts.

According to the General Plan, the School District receives developer fees on building plans for new construction before the City of Pleasanton issues building permits on those plans. The fees can only be used for capital improvements for school facilities. Because fees paid by Specific Plan development would be used to fund new school facilities, it is expected that the School District would have adequate classroom capacity to accommodate students generated by development within the Specific Plan area.

Government Code Section 65995 prohibits a local agency from either denying approval of a land use project because of inadequate school facilities or imposing school impact mitigation measures other than designated fees. Therefore, payment of development fees to the School District would address the proposed Base Plan’s impacts on schools and ensure that impacts are less than significant.

**Level of Significance Before Mitigation**

Less than significant Impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Parks, Trails, and Community Facilities**

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**Impact PSR-4:        Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded park, trail, or community facilities beyond those included in the Specific Plan.**

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**Impact Analysis**

The City of Pleasanton provides various parks, trails, and community facilities. The East Bay Regional Park District (EBRPD) also provides parks and trails within the vicinity of the City.

The Specific Plan contemplates development of both residential and non-residential land uses that would be expected to increase park, trail, and community facility use.

In recognition of this increased demand for recreational facilities, the Specific Plan includes additional park facilities and public spaces as described below.

- An approximately 38-acre open space community park east of the intersection of El Charro Road and Busch Road.
- A 13-acre active recreation area along the south side of Lake I (7.5 acres of which may be developed as a school).
- A 2-acre village green located in the vicinity of the eastern end of Busch Road.
- A 50-foot wide north/south oriented open space spine with 16-foot wide multi-use trail between Stanley Boulevard and Lake I through the residential area.

In addition, the Specific Plan includes the extension of public trails into and through the Plan Area and some of the Zone 7 land east of the community park may also be used for passive recreational use. In total, the Specific Plan would provide 53 gross acres of public park lands (inclusive of the 7.5-acre potential school site). In addition, the Specific Plan also requires private open space such as paseos, courtyards, neighborhood parks, and pocket parks. As indicated in by the Specific Plan, individual project developers are required to pay the applicable City of Pleasanton’s in-lieu park

dedication fees, subject to credit for the dedication of all land necessary for the three public parks identified above.

General Plan Program 10.18 requires the provision 5 acres of neighborhood or community park per 1,000 people. The Specific Plan is estimated to include a population of 4,160 residents requiring at least 20.8 acres of public park land to maintain the required ratio. As indicated, the Specific Plan includes 53 gross acres of lands designated as Public Park land use, which would exceed the requirement, even if the 7.5-acre school site is constructed.

The EBRPD operates the Iron Horse Trail near the Plan Area, and the EBRPD Master Plan depicts a future extension of the Trail along Valley Avenue and connecting to an existing sidewalk/trail along the south side of Stanley Boulevard where it would continue east to Livermore. The Specific Plan incorporates a Trail extension from its current terminus at Busch Road through the Plan Area along Busch Road, connecting to a planned trail that parallels El Charro Road and ends at the Shadow Cliffs Regional Park on Stanley Boulevard.

The EBRPD Master Plan designates an area within the Chain of Lakes as “Potential EBRPD Parklands.” It does not, however, provide any additional guidance. As noted earlier, the Pleasanton General Plan calls for a 38-acre community park to be developed on reclaimed quarry land within the Plan Area. While the City has not yet determined the functions for this park, it would provide regional public park land consistent with the EBRPD’s goal of providing public park land in the Chain of Lakes area.

In summary, residential development within the Specific Plan Area would increase the City’s population and have a corresponding increase in park usage. The Specific Plan includes sufficient additional public park land and requires additional private open space. As such, impacts to parks would be less than significant.

**Level of Significance Before Mitigation**

Less than significant Impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Library Services**

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<b>Impact PSR-5:</b>	<b>Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded library facilities or adverse impacts on related services.</b>
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**Impact Analysis**

The population increase attributable to the Specific Plan would result in an increased demand for library services. The City currently has 30,000 square feet of library space, and has identified the

need for a total of approximately 72,800 square feet of library space to meet the long-term needs of the Pleasanton Community. The goal is to provide a per capita rate of 3.7 volumes.

The City has a conceptual design and preliminary cost analysis for expanding the existing library at 400 Old Bernal Avenue. As part of the Civic Center Master Plan, the City also analyzed the potential for constructing a new library building at the corner of Main Street and Bernal Avenue. Eventual expansion of the existing library or construction of a new library is included in the Capital Improvement Program Civic Center Site Improvements Reserve project (CIP 98029). As such, sufficient library space is already planned and programmed to accommodate the Specific Plan and build out of the City in general. Impacts related to the Base Plan would be less than significant.

***Level of Significance Before Mitigation***

Less than significant Impact.

***Mitigation Measures***

No mitigation is necessary.

***Level of Significance After Mitigation***

Less than significant impact.

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## 3.14 - Transportation/Traffic

This section describes the existing transportation setting and potential effects from implementation of the Specific Plan within the Plan Area and its surroundings. Descriptions and analysis in this section are based on information contained in the City of Pleasanton General Plan and the East Pleasanton Specific Plan Transportation Impact Analysis, prepared by Fehr and Peers and included in this Draft EIR as Appendix H.

### 3.14.1 - Environmental Setting

#### Roadway System

The existing circulation network consists of interstates, arterials, collector streets, and local streets. Exhibit 3.14-1 illustrates the existing roadway system surrounding the Plan Area and the main proposed roadways within the Plan Area.

#### Regional Access

Regional access to the Plan Area is provided by Interstates 580 (I-580) and 680 (I-680). I-580 is an east-west freeway that forms the northern boundary of the City of Pleasanton. It extends from the City of San Rafael in the west to the City of Tracy in the east. Four to five travel lanes per direction are provided through Pleasanton, where the facility carries approximately 200,000 to 225,000 vehicles per day, based on information provided by Caltrans. An extension of El Charro Road would provide direct access to the Plan Area from I-580.

I-680 is a north-south freeway along the western edge of the City of Pleasanton, connecting San Jose in the south to Fairfield in the north. Three travel lanes per direction are provided through Pleasanton and per information from Caltrans; the facility carries approximately 150,000 to 170,000 vehicles per day through Pleasanton. Interchanges at Stoneridge Drive, Bernal Avenue, and Sunol Boulevard provide access to the Plan Area from I-680.

#### Local Access

Other major roadways in the vicinity of the Plan Area include Stanley Boulevard, El Charro Road, Santa Rita Road, Stoneridge Drive, West Jack London Boulevard, Bernal Avenue, Valley Avenue, Main Street, Sunol Boulevard/First Street, Busch Road, and Boulder Street. The extents of these roadways in relation to the Specific Plan area are described in more detail below.

**Stanley Boulevard** is a four-lane arterial that forms the southern boundary of the Plan Area. It connects Livermore in the east to Downtown Pleasanton in the west, where it becomes First Street. Along the project frontage, Stanley Boulevard is parallel to the Union Pacific Railroad tracks. No parking is permitted along Stanley Boulevard in the vicinity of the Plan area. A trail is provided on the south side of Stanley Boulevard for bicycle and pedestrian circulation. Stanley Boulevard is a designated truck route.

**El Charro Road** is a four-lane roadway between Stoneridge Drive/West Jack London Boulevard to I-580, where it continues north into Dublin as Fallon Road. South of Stoneridge Drive/West Jack

London Boulevard, El Charro Road continues as a two-lane unimproved (no curb, gutter, or sidewalk) roadway into the Plan Area. Access to existing industrial and quarry uses in the Plan Area is provided, but through travel is not permitted.

**Santa Rita Road** is a four- to six-lane arterial that connects I-580 with Downtown Pleasanton. Parking is generally prohibited along this roadway. Bicycle lanes are provided on a portion of the corridor, with wide shoulders on other portions that accommodate some bicycle travel. Sidewalks are provided along Santa Rita Road.

**Stoneridge Drive** is generally a four- to six-lane arterial that extends from Foothill Road, west of I-680, to El Charro Road. An extension of this roadway was completed in November 2013, connecting Pleasanton to Livermore at El Charro Road, and continuing into Livermore as West Jack London Boulevard. The roadway is temporarily narrowed across the Arroyo Mocho to provide one travel lane in each direction. Bicycle lanes and sidewalks are provided on Stoneridge Drive. Parking is prohibited along the roadway.

**West Jack London Boulevard** is the continuation of Stoneridge Drive into Livermore, extending to Isabel Avenue and terminating at Murrieta Boulevard. West Jack London Boulevard is a considered a major roadway through Livermore and provides one to two travel lanes in each direction with turn pockets at intersections. Bicycle lanes and sidewalks are provided along portions of the roadway.

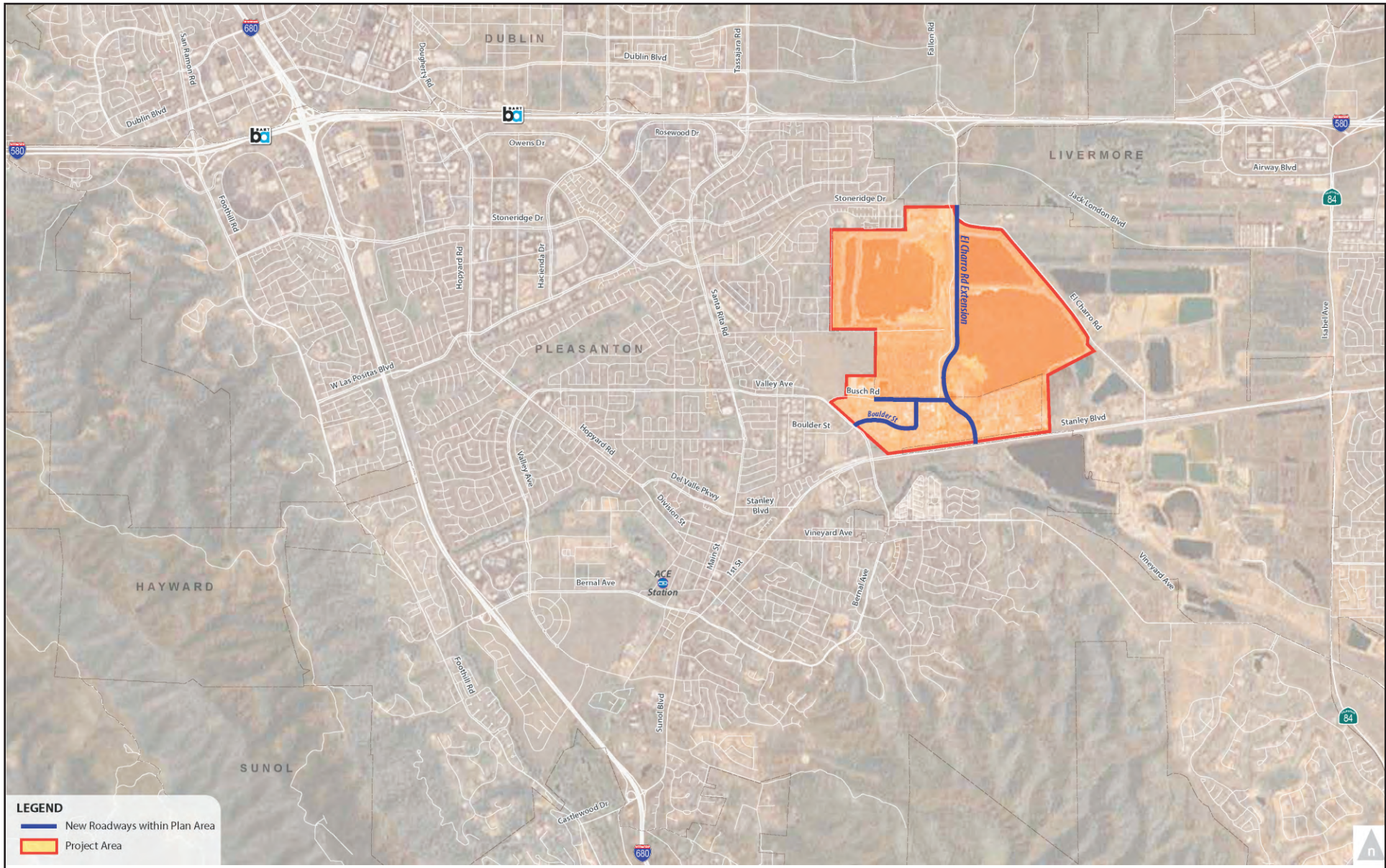
**Bernal Avenue** is an east-west arterial that connects Foothill Road in the west to Stanley Boulevard in the east, where it continues as Valley Avenue. The roadway varies between one to three travel lanes in each direction. Parking is generally prohibited along this roadway with bicycle lanes provided on some roadway segments. Sidewalks are not provided on Bernal Avenue between Valley Avenue and Pleasanton Avenue, although a paved pathway is provided on the south side of this street segment.

**Valley Avenue** is a two- to four-lane arterial that forms a loop roadway from Stanley Boulevard in the northeast to Sunol Boulevard in the southwest. Sidewalks are generally provided along Valley Avenue, and bicycle facilities are provided along portions of the roadway. On-street parking is permitted on some roadway sections.

**Main Street** is a north-south arterial that extends from Bernal Avenue to Old Stanley Boulevard where it continues as Santa Rita Road. Main Street provides a single travel lane in each direction through Downtown Pleasanton with parallel parking and wide sidewalks. The character of Main Street encourages low vehicle speeds and multiple modes of transportation, including walking, biking, transit use, and automobile.

**Sunol Boulevard/First Street** is a southwest-northeast arterial, which extends from I-680 to Old Stanley Boulevard. At Bernal Avenue, Sunol Boulevard continues as First Street. North of Old Stanley Boulevard, First Street continues as Stanley Boulevard, which continues along the First Street alignment. Sunol Boulevard provides six travel lanes in the vicinity of I-680 and four travel lanes between Sycamore Road and Bernal Avenue. No on-street parking is permitted on Sunol Boulevard. Parking is permitted on First Street and direct access to residential driveways is provided.





Source: Fehr & Peers, 2015



## Exhibit 3.14-1 Project Vicinity Roadway Map

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This roadway is a designated truck route from I-680 to Stanley Boulevard. Stanley Boulevard continues the truck route to Livermore.

**Busch Road** is a two-lane collector that connects the Plan Area to Valley Avenue. Sidewalks are provided on the north side of the roadway between Valley Avenue and Ironwood Drive and no on-street parking is permitted. East of Ironwood Drive, no curb, gutter, or sidewalk features are provided along the roadway. East of the Pleasanton Transfer Station and Recycling Center, Busch Road terminates as a public road and continues as a private road, which is access-restricted.

**Boulder Street** is a two-lane local street that connects Valley Avenue to Quarry Lane. To the east of Valley Avenue, it provides access to a self-storage facility. On-street parking is permitted on Boulder Street and sidewalks are provided adjacent to developed parcels.

### Study Intersections

The following 27 off-site intersections, as shown on Exhibit 3.14-2, were selected as study locations in consultation with the City of Pleasanton staff.

1. Rosewood Drive at Santa Rita Road
2. West Las Positas Boulevard at Santa Rita Road
3. Stoneridge Drive at Santa Rita Road
4. Valley Avenue at Santa Rita Road
5. Valley Avenue at Busch Road
6. Valley Avenue at Boulder Street
7. Stanley Boulevard at Bernal Avenue/Valley Avenue
8. Stanley Boulevard at First Street (Exempted Downtown)
9. Ray Street/Vineyard Avenue at First Street (Exempted Downtown)
10. Bernal Avenue at First Street/Sunol Boulevard (Exempted Downtown)
11. Valley Avenue/Junipero Street at Sunol Boulevard
12. Bernal Avenue at Valley Avenue (Gateway Intersection)
13. I-680 Northbound Ramp at Sunol Boulevard (Gateway Intersection)
14. I-680 Southbound Ramp at Sunol Boulevard (Gateway Intersection)
15. I-580 Eastbound Off-Ramp/Pimlico Drive at Santa Rita Road (Gateway Intersection)
16. I-580 Westbound Off-Ramp at Santa Rita Road/Tassajara Road (Gateway Intersection)
17. I-680 Southbound Ramps at Bernal Avenue (Gateway Intersection)
18. I-680 Northbound Ramps at Bernal Avenue (Gateway Intersection)
19. Dublin Boulevard at Fallon Road (City of Dublin)
20. I-580 Westbound Ramps at Fallon Road (Gateway Intersection)
21. I-580 Eastbound Ramps at Fallon Road (Gateway Intersection)
22. Stoneridge Drive/Jack London Boulevard at El Charro Road/Fallon Road
23. Jack London Boulevard at Isabel Avenue (City of Livermore)
24. Stanley Boulevard at Isabel Avenue Extension (City of Livermore)
25. Isabel Avenue Extension at Isabel Avenue (City of Livermore)
26. Busch Road at Ironwood Drive
27. Stanley Boulevard at El Charro Road (future intersection) (Gateway Intersection)

The following 11 onsite intersections were also selected as study locations:

1. Busch Road/Roadway 1
2. Busch Road/Neighborhood Loop Road
3. Busch Road/Boulder Street
4. Busch Road/Retail Entry
5. Boulder Street/Neighborhood Connector
6. El Charro Road/Quarry Entry
7. El Charro Road/Office/Retail Entry
8. El Charro Road/Destination Use Entry
9. El Charro Road/Neighborhood Loop Road
10. El Charro Road/Busch Road
11. El Charro Road/Industrial Entry

### **Level of Service Methodology**

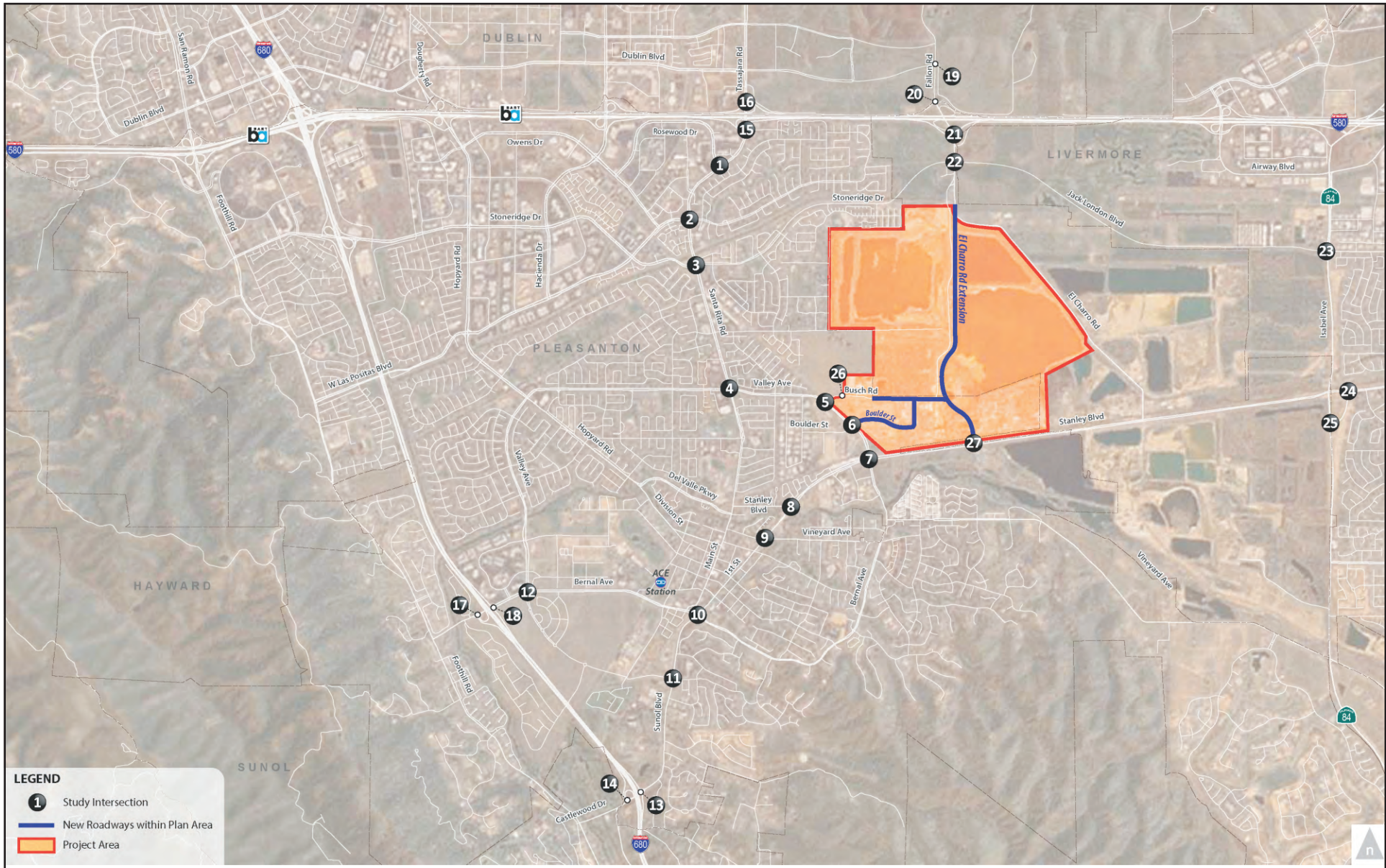
The operations of roadway facilities are described with the term “level of service” (LOS). LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels of service are defined ranging from LOS A (i.e., free flowing conditions) to LOS F (over-capacity conditions). LOS E corresponds to operations “at capacity.” When volumes exceed capacity, stop-and-go conditions result and operations are designated as LOS F. The City of Pleasanton generally strives to maintain LOS D or better for peak hour intersection operations. However, a number of intersections, referred to as Gateway and Exempted Downtown intersections, are exempt from the LOS D policy. These intersections are exempt from the LOS D policy, as physical improvements at those intersections to provide additional capacity for vehicles could degrade the pedestrian realm in the case of Downtown intersections. For Gateway intersections, additional vehicle capacity could encourage additional vehicle traffic that should remain on the regional transportation system and could also degrade the pedestrian experience and visual character of the intersection.

Different methods are used to assess LOS at signalized and unsignalized (stop-controlled) intersections. Each is discussed in the following paragraphs.

### ***Signalized Intersections***

Traffic conditions at signalized intersections were evaluated using the method from Chapter 16 of the Transportation Research Board’s 2000 Highway Capacity Manual, which uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay experienced by motorists traveling through an intersection. Control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue.

Table 3.14-1 summarizes the relationship between average delay per vehicle and LOS for signalized intersections.



Source: Fehr & Peers, 2015



## Exhibit 3.14-2 Study Intersection Locations

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**Table 3.14-1: Signalized Intersection LOS Criteria**

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	0 to 10.00
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and/or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00
E	Operations with long delays indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.01 to 80.00
F	Operations with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up

Source: Highway Capacity Manual (Transportation Research Board, 2000).

**Unsignalized Intersections**

Traffic conditions at unsignalized intersections were evaluated using the method from Chapter 17 of the 2000 Highway Capacity Manual. With this method, operations are defined by the average control delay per vehicle (measured in seconds) for each movement that must yield the right-of-way. At two-way or side street-controlled intersections, the control delay (and LOS) is calculated for each controlled movement, the left-turn movement from the major street, and the entire intersection. For controlled approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The delays for the entire intersection and for the movement or approach with the highest delay are reported. Table 3.14-2 summarizes the relationship between delay and LOS for unsignalized intersections.

**Table 3.14-2: Unsignalized Intersection LOS Criteria**

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Little or no delays	0 to 10.0
B	Short traffic delays	10.01 to 15.00
C	Average traffic delays	15.01 to 25.00
D	Long traffic delays	25.01 to 35.00

**Table 3.14-2 (cont.): Unsignalized Intersection LOS Criteria**

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
E	Very long traffic delays	35.01 to 50.00
F	Extreme traffic delays with intersection capacity exceeded	> 50.00

Source: Highway Capacity Manual (Transportation Research Board, 2000).

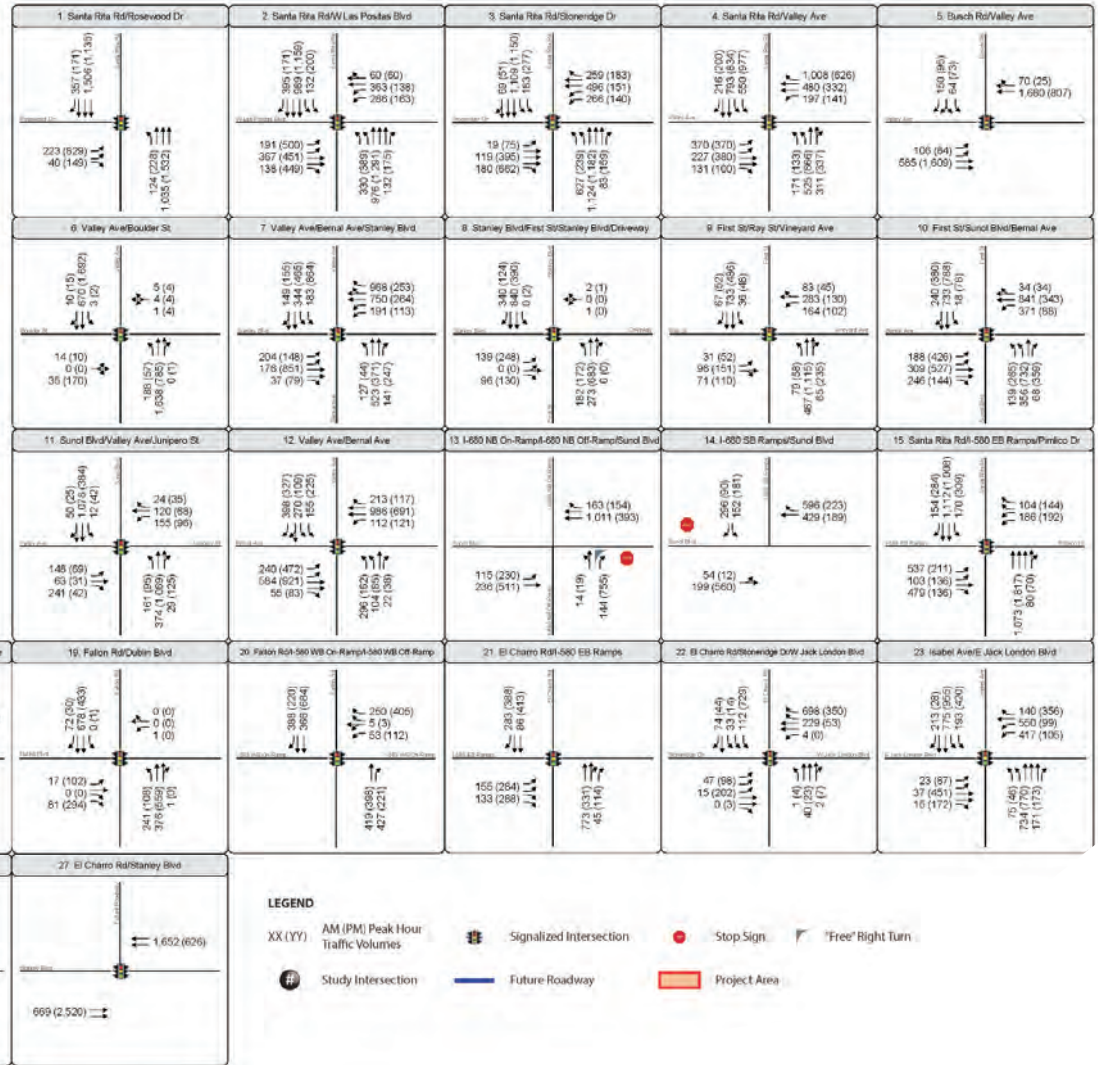
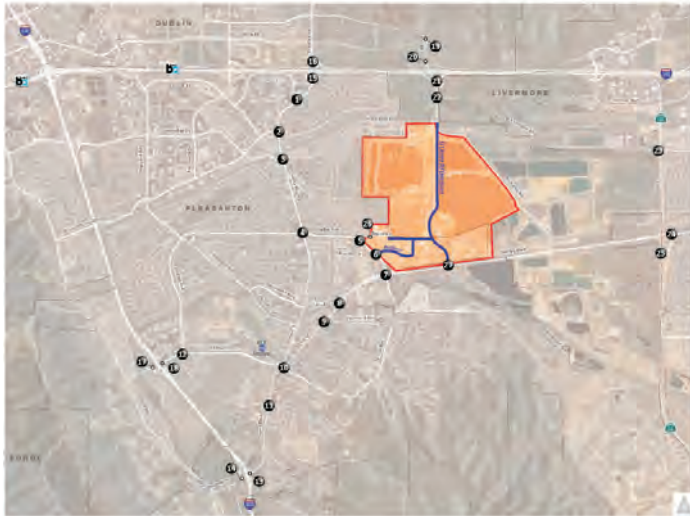
**Existing Intersection Levels of Service**

Weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period intersection turning movement counts were conducted at the majority of study intersections in November 2013 on clear days with area schools in session, and include traffic conditions after the opening of the Stoneridge Drive extension. Traffic counts at a subset of intersections were provided by the City of Pleasanton, also reflective of November 2013 conditions. For the study intersections, the single hour with the highest traffic volumes during each count period was identified. Existing lane configurations and signal controls were obtained through field observations. The peak-hour vehicle volumes are illustrated on Exhibit 3.14-3, along with existing lane configurations and traffic controls.

Existing intersection lane configurations, signal timings, and peak hour turning movement volumes were used to calculate the levels of service for the key intersections during each peak hour. Observed peak hour factors<sup>1</sup> were used at all intersections for the existing analysis. Pedestrian and bicycle activity was also factored into the analysis. The results of the LOS analysis using the Synchro 7.0 software program for Existing conditions are presented in Table 3.14-3. Appendix H contains the corresponding LOS calculation sheets. The results of the LOS calculations indicate all study intersections operate at overall acceptable levels of service according to their designated LOS standard during both the morning and evening peak hours.

<sup>1</sup> The peak hour factor is the relationship between the peak 15-minute flow rate and the full hourly volume:  $PHF = \text{Hourly volume} / (4 \times (\text{volume during the peak 15 minutes of flow}))$ . The analysis level of served is based on peak rates of flow occurring within the peak hour because substantial short term fluctuations typically occurring during an hour.





Source: Fehr & Peers, 2015



# Exhibit 3.14-3 Existing Peak Hour Traffic Volumes, Lane Configurations and Traffic Control

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**Table 3.14-3: Existing Peak-Hour Intersection Level of Service**

Intersection		Control <sup>1</sup>	Peak Hour	Delay <sup>2</sup>	LOS <sup>3</sup>
1	Rosewood Drive at Santa Rita Road	Signal	AM PM	9 23	A C
2	West Las Positas Boulevard at Santa Rita Road	Signal	AM PM	34 36	C D
3	Stoneridge Drive at Santa Rita Road	Signal	AM PM	39 30	D C
4	Valley Avenue at Santa Rita Road	Signal	AM PM	33 45	C D
5	Valley Avenue at Busch Road	Signal	AM PM	11 6	B A
6	Valley Avenue at Boulder Street	Signal	AM PM	7 9	A A
7	Stanley Boulevard at Bernal Avenue/Valley Avenue	Signal	AM PM	31 30	C C
8	Stanley Boulevard at First Street (Downtown Exempt)	Signal	AM PM	26 25	C C
9	Ray Street/Vineyard Avenue at First Street (Downtown Exempt)	Signal	AM PM	27 28	C C
10	Bernal Avenue at First Street/Sunol Boulevard (Downtown Exempt)	Signal	AM PM	41 33	D C
11	Valley Avenue at Sunol Boulevard	Signal	AM PM	29 19	C B
12	Bernal Avenue at Valley Avenue (Gateway Intersection)	Signal	AM PM	30 25	C C
13	I-680 Southbound Ramp at Sunol Boulevard (Gateway Intersection)	SSSC	AM PM	1 (21) 2 (46)	A (C) A (E)
14	I-680 Northbound Ramp at Sunol Boulevard (Gateway Intersection)	SSSC	AM PM	6 (22) 5 (20)	A (C) A (C)
15	I-580 Eastbound Off-Ramp/Pimlico Drive at Santa Rita Road (Gateway Intersection)	Signal	AM PM	21 23	C C
16	I-580 Westbound Off-Ramp at Santa Rita Road (Gateway Intersection)	Signal	AM PM	7 7	A A
17	I-680 Southbound Ramps at Bernal Avenue (Gateway Intersection)	Signal	AM PM	11 6	B A
18	I-680 Northbound Ramps at Bernal Avenue (Gateway Intersection)	Signal	AM PM	16 18	B B

**Table 3.14-3 (cont.): Existing Peak-Hour Intersection Level of Service**

Intersection		Control <sup>1</sup>	Peak Hour	Delay <sup>2</sup>	LOS <sup>3</sup>
19	Dublin Boulevard at Fallon Road (City of Dublin)	Signal	AM PM	7 11	A B
20	I-580 Westbound Ramps at Fallon Road (Gateway Intersection)	Signal	AM PM	5 6	A A
21	I-580 Eastbound Ramps at Fallon Road/El Charro Road (Gateway Intersection)	Signal	AM PM	5 6	A A
22	Stoneridge Drive/Jack London Boulevard at El Charro Road	Signal	AM PM	20 20	B B
23	Jack London Boulevard at Isabel Avenue (City of Livermore)	Signal	AM PM	36 36	D D
24	Stanley Boulevard at Isabel Avenue (City of Livermore)	Signal	AM PM	19 11	B B
25	Isabel Avenue Extension at Isabel Avenue (City of Livermore)	Signal	AM PM	6 7	A A
26	Busch Road at Ironwood Drive	Signal	AM PM	6 6	A A

Notes:  
<sup>1</sup> Signal = Signalized Intersection; SSSC = Side-street stop-controlled intersections; traffic on the main street does not stop while traffic on the side street is controlled by a stop sign.  
<sup>2</sup> Delay presented in seconds per vehicle; for side-street stop-controlled intersections, delay presented in Intersection average (the delay and LOS of the worst approach are provided in parenthesis).  
<sup>3</sup> LOS = Level of Service.  
 Source: Fehr & Peers, March 2015.

**Signal Warrants**

Traffic signal warrants were reviewed for the two unsignalized study intersections; northbound and southbound ramps of I-680 with Sunol Boulevard. Traffic signal warrants<sup>2</sup> are currently satisfied at the southbound I-680 ramp terminal intersection with Sunol Boulevard. The City of Pleasanton ultimately plans to signalize both Sunol Boulevard ramp terminal intersections with I-680. Traffic signal warrant worksheets are provided in Appendix H.

<sup>2</sup> Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the MUTCD and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible State or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

## Vehicle Queues

Average and 95th percentile vehicle queues as calculated by Synchro were also reviewed for the study intersections. Detailed queuing sheets are also in Appendix H. Generally, vehicle queues are contained within the available storage. However, there are some intersections where vehicle queues may periodically spillback beyond the available storage, especially where turn movement volumes are high, such as along Santa Rita Road at W. Las Positas Road, Stoneridge Drive, and Valley Avenue. As all signalized study intersections currently operate at LOS D or better, vehicle queues can be moderated with signal timing adjustments, which the City reviews on a regular basis.

## Existing Pedestrian Facilities

Pedestrian facilities include sidewalks, pathways, crosswalks, and pedestrian signals. Pedestrian facilities are provided on all the major public roadways described above except on the northeast quadrant of the Stanley Boulevard at Valley Avenue/Bernal Avenue signalized intersection. Sidewalks are limited on Busch Road to the north side of the street between Valley Avenue and Ironwood Drive. East of Valley Avenue, no sidewalks are provided on the north side of Stanley Boulevard near the Plan Area. Sidewalks are provided for approximately 0.25 mile on the south side of Stanley Boulevard, east of Valley Avenue connecting to the BMX park. Pedestrian activity is low to moderate in the immediate vicinity of the Specific Plan area.

## Existing Bicycle Facilities

Bicycle facilities in Pleasanton include the following general types consistent with minimum American Association of State Highway and Transportation Officials (AASHTO) standards. Depending on the circumstances and where feasible, the City of Pleasanton has chosen to go above and beyond AASHTO standards.

- Bike paths (Class I) – Paved trails that are separated from roadways. There are also several unpaved off-street trails within Pleasanton. These facilities are typically shared with pedestrians, although bicycles must yield to pedestrians. Vehicle cross-flow is minimized.
- Bike lanes (Class II) provide restricted right-of-way and are designated for the use of bicycles with a striped lane on a street. Bicycle lanes are generally five (5) feet wide. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.
- Bike routes (Class III) provide for a right-of-way designated by signs or pavement markings (sharrows) for shared use with pedestrians or motor vehicles. Sharrows are a type of pavement marking (bike and arrow stencil) placed to guide bicyclists to the best place to ride on the road, avoid car doors, and remind drivers to share the road with cyclists.
- Side Paths – An off-street facility located adjacent to a roadway that is shared with pedestrians. These paths may be paved or unpaved.

Bicycle activity is moderate near the Plan Area. A portion of the Iron Horse Trail—a regional trail that will ultimately extend from Martinez in the north to Livermore in the southeast—is located adjacent to the Plan Area as an off-street trail connecting Santa Rita Road to Busch Road. This trail

will ultimately connect to Livermore through the Plan Area, and when complete, the 55-mile trail system will connect two counties and nine cities.

### Existing Transit Service

Transit service in the area is provided by Wheels, Pleasanton Paratransit, The County Connection, Bay Area Rapid Transit (BART), and Altamont Commuter Express (ACE).

**Wheels** provides fixed-route and paratransit service throughout the Cities of Dublin, Pleasanton, and Livermore, and provides connections to other transit service providers. Route 10 provides the closest service to the Specific Plan area and operates along Stanley Boulevard and Santa Rita Road. The route connects the Lawrence Livermore National Laboratories, the Downtown Livermore ACE station, Downtown Pleasanton, and the East Pleasanton BART station. Service frequency ranges from 15 minutes during peak commute periods to 1 hour during off-peak periods. School bus service is provided in the neighborhoods to the west of the Specific Plan area. No service is currently provided on El Charro Road or Valley Avenue in the vicinity of the Specific Plan area.

**Pleasanton Paratransit** provides scheduled door-to-door shared ride services for residents of Pleasanton and Sunol who are age 70 and over, and for disabled residents between the ages of 18 and 69. Transportation is provided between 8:00 a.m. and 5:30 p.m., Monday through Friday, with service also provided on Saturdays. Rides must be requested at least 2 days in advance.

The Central Contra Costa Transit Authority (CCCTA) **County Connection** provides transit service connecting destinations in Contra Costa County to the Tri-Valley area, including service from the East Pleasanton BART station to the San Ramon Transit Center and Bishop Ranch Business Park. There is also a route that connects the Walnut Creek BART station to the Downtown Pleasanton ACE station.

**Bay Area Rapid Transit (BART)** provides regional transportation connections to much of the Bay Area and the Dublin/Pleasanton line provides direct access to San Francisco, with several stops in Oakland where connections may be made to other lines. BART train frequency ranges from 15 to 20 minutes from approximately 5:00 a.m. to 12:00 a.m. Based on 2013 data from BART, approximately 6,800 passengers per day enter/exit the BART system at the East Dublin/Pleasanton station, and approximately 3,200 passengers enter/exit the BART system at the West Dublin/Pleasanton BART Station.

The **Altamont Commuter Express (ACE)** operates weekday train service between Stockton and San Jose with a stop in Downtown Pleasanton. During the morning commute period, only westbound service from the Central Valley to San Jose is provided, while only eastbound service is provided in the afternoon/evening commute period. There are four morning trains through Pleasanton between 5:33 a.m. and 8:18 a.m., and four evening trains between 4:28 p.m. and 7:31 p.m. The Pleasanton ACE station is located approximately 2 miles west of the Plan area on Pleasanton Avenue at Bernal Avenue. ACE trains carry approximately 4,000 passengers on a typical weekday, with approximately 600 passengers boarding the ACE system at the downtown Pleasanton Station on a typical weekday.

### 3.14.2 - Regulatory Framework

#### State

##### ***California Department of Transportation (Caltrans)***

Caltrans builds, operates, and maintains the state highway system, including the interstate highway system. Caltrans's mission is to improve mobility statewide. The department operates under strategic goals to provide a safe transportation system, optimize throughput and ensure reliable travel times, improve the delivery of state highway projects, provide transportation choices, and improve and enhance the State's investments and resources. Caltrans controls the planning of the state highway system and accessibility to the system. Caltrans establishes LOS goals for highways and works with local and regional agencies to assess impacts and develop funding sources for improvements to the state highway system. Caltrans requires encroachment permits from agencies or new development before any construction work may be undertaken within the State's right-of-way. For projects that would impact traffic flow and levels of services on state highways, Caltrans would review measures to mitigate the traffic impacts.

#### Regional

##### ***Metropolitan Transportation Commission's Plan Bay Area***

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area. Plan Bay Area provides a long-range road map to guide the Bay Area's transportation investments for a 25-year period. Adopted in Summer 2013, Plan Bay Area succeeds MTC's previously adopted "Transportation 2035" plan.

#### Alameda County

##### ***Alameda Countywide Transportation Plan (CWTP)***

The CWTP is a long-range policy document, which guides the County with future transportation investment, programs, policies, and advocacy through 2040. The CWTP addresses issues with the transportation system, which includes buses, railway, freeways, ferries, and other modes of transit. The current CWTP (2012) contains several proposed improvements that would benefit the regional roadway network within the Plan Area including the construction of El Charro Road.

##### ***Alameda County Congestion Management Agency (CMA)***

The Alameda County CMA operates a Regional Congestion Management Program, which monitors cumulative transportation impacts of growth on the regional roadway system, identifies deficient roadways, and develops plans to mitigate the deficiencies. The Regional Congestion Management Program considers LOS E or F operations to be deficient, and the Congestion Management Program designated routes includes segments of I-80, I-580, I-980, and many other major roadways within the County.

##### ***Livermore Airport Land Use Compatibility Plan***

The State Aeronautics Act requires the preparation and implementation of Airport Land Use Compatibility Plans (ALUCP) for nearly all public airports in the State. ALUCPs are intended to ensure that incompatible development does not occur on land surrounding airports. To accomplish this, the

Act established Airport Land Use Commissions (ALUCs) in counties having public use airports. The commissions are charged with developing, updating, and implementing ALUCPs.

The Alameda County ALUC was created in 1971 and adopted the Alameda County ALUCP in 1977. The most recent update ALUCP for the Livermore Airport was completed in August 2012.

## Local

### City of Pleasanton

#### General Plan

The Pleasanton General Plan sets forth the following goals, policies, and programs related to transportation and traffic that are applicable to the proposed project:

- **Goal 1:** Develop a safe, convenient and uncongested circulation system.
- **Goal 2:** Develop and manage a local and regional street and highway system, which accommodates future growth while maintaining acceptable levels of service.
  - **Policy 1:** Complete the City's street and highway system in accordance with the General Plan Map, Figures 3-7 and 3-10, and Table 3-8.
    - **Program 1.1:** Require new developments to pay for their fair share of planned roadway improvement costs.
    - **Program 1.3:** Support the use of assessment districts to equitably spread the cost of new roadways and improvements and to facilitate installation of improvements with development.
    - **Program 1.5:** Preserve rights-of-way needed for local and regional roadway improvements through dedication of land, as adjacent properties develop.
  - **Policy 2:** Phase development and roadway improvements so that levels of service at adjacent major intersections do not exceed LOS D at major intersections outside Downtown and gateway intersections.
    - **Program 2.1:** Monitor roadway improvements to determine if levels of service are approaching congestion according to City standards.
    - **Program 2.2:** Require site-specific traffic studies for all major developments which have the potential to cause the level of service at one or more major intersections to exceed LOS D, and require developers to implement the mitigation measures identified in these studies. In general, require development to improve congested intersections adjacent to such development or to pay its pro-rata share of the cost of such improvements, and to pay traffic development fees for use in mitigating traffic impacts in other areas of the city.
    - **Program 2.7:** Require feasible mitigation measures to keep intersections impacted by development to acceptable service levels, in the event that LOS D is exceeded. If there are no feasible mitigation measures and if the intersections are otherwise not exempt from the LOS D standard, withhold development approvals, including building permits, until the intersections exceeding LOS D are at an acceptable level of service.
  - **Policy 3:** Facilitate the free flow of vehicular traffic on major arterials.
    - **Program 3.2:** Prohibit additional private-access driveways onto major arterials.
    - **Program 3.3:** Minimize traffic signal delays to less than 100 seconds, whenever possible.



- **Program 3.4:** Make street improvements as appropriate to reduce traffic queuing and delay.
- **Program 3.5:** Discourage additional on-street parking on arterials.
- **Policy 5:** At gateway intersections, facilitate the flow of traffic and access into and out of the City, consistent with maintaining visual character, landscaping, and pedestrian convenience.
  - **Program 5.1:** Gateway intersections (listed in Table 3-4) are exempted from the citywide LOS D standard (constrained gateway policy) but consideration may be given to improvements at gateway intersections when it is determined that such improvements are necessary and are consistent with maintaining visual character, landscaping, and pedestrian amenities.
- **Policy 6:** Design and regulate city streets to minimize traffic-related impacts on adjacent land uses.
  - **Program 6.1:** Provide setbacks, landscaping, frontage roads, soundwalls, and other methods to protect adjacent land uses from safety, noise, and air quality impacts associated with traffic on arterials and freeways.
  - **Program 6.2:** Restrict truck traffic to designated truck routes, except when trucks are making local deliveries (See Figure 3-13).
  - **Program 6.3:** Require all gravel trucks to use State Route 84 as the sole access road to I-580 and I-680, except for trucks from gravel operations that have direct access onto El Charro Road.
  - **Program 6.4:** Notify all residents and property owners who may be directly affected by potential street closures and traffic re-routing in advance of taking such actions.
  - **Program 6.5:** Prohibit Mohr Avenue and Valley Avenue as a truck route or primary access to industrial development to the east.
  - **Program 6.6:** Discourage residential driveway access directly onto residential collector streets.
- **Policy 7:** Adhere to City design standards for streets in new developments.
  - **Program 7.1:** Incorporate City design standards for arterials, collectors, neighborhood collectors, and local public and private streets as part of the City’s review of new developments.
  - **Program 7.2:** Provide more than one access road for emergency vehicle routes to new developments, whenever feasible.
  - **Program 7.3:** Design complete streets serving pedestrians, bicyclists, motorists, and transit riders of all ages and abilities, except where infeasible. Complete streets may include: alternative intersection control where appropriate; requiring bicycle and pedestrian connections from cul-de-sacs to adjacent streets, trails, bicycle paths, and neighborhoods; and incorporating appropriate traffic calming measures.
  - **Program 7.4:** Discourage new gated communities.
  - **Program 7.5:** Consider issues such as level of traffic, safety, vehicular noise, visual quality, and related environmental issues when reviewing new development adjacent to arterials.
  - **Program 7.6:** Design new streets and alterations of existing streets to preserve the character and safety of existing residential neighborhoods.
- **Policy 8:** Maximize traffic safety for automobile, transit, bicycle users, and pedestrians.

- **Program 8.3:** Separate vehicular, bicycle, and pedestrian traffic, whenever feasible, especially on routes to schools.
- **Program 8.4:** Provide bike lanes on arterials and collector streets, where feasible.
- **Program 8.5:** Restrict parking near intersections to ensure visibility and traffic safety.
- **Program 8.6:** Require the installation of bus turnouts and shelters along planned or potential transit routes.
- **Program 8.7:** Develop a traffic safety methodology for traffic studies and then require that traffic studies prepared for the City include a traffic safety section.
- **Policy 10:** Require adequate on- and off-street parking.
  - **Program 10.1:** Enforce the parking provisions of the City’s Zoning Ordinance. For Planned Unit Developments with the potential for shared parking or where located proximate to transit, consider modifications to Zoning Ordinance parking standards, when necessary and if appropriate.
- **Goal 3:** Protect residential neighborhood quality-of-life and community character from cut-through traffic, speeding, and nonresidential parking.
  - **Policy 11:** Manage arterial and collector traffic to minimize adverse impacts on neighborhoods.
    - **Program 11.1:** Implement the City’s Traffic-Calming Program.
    - **Program 11.2:** Minimize traffic impacts and cut-through traffic in new developments by incorporating traffic-calming elements and other design features.
    - **Program 11.3:** Discourage non-local and commercial traffic from using streets through residential areas.
  - **Policy 12:** Discourage encroachment of non-residential parking in existing neighborhoods.
    - **Program 12.1:** Implement the residential parking permit program where necessary.
    - **Program 12.3:** Study and evaluate the need for additional regulations pertaining to the on- and off-street parking of recreational vehicles (including motor homes, trailers, boats, jet skis, etc.).
- **Goal 4:** Provide a multi-modal transportation system, which creates alternatives to the single-occupancy automobile.
  - **Policy 13:** Phase transit improvements to meet the demand for existing and future development.
  - **Policy 14:** Encourage coordination and integration of Tri-Valley transit to create a seamless transportation system.
    - **Program 14.1:** Work with transit agencies to meet transit needs based on development and commute patterns.
  - **Policy 15:** Reduce the total number of average daily traffic trips throughout the city.
    - **Program 15.1:** Promote the use of transit, ridesharing, bicycling, and walking through the City’s Transportation Coordinator and encourage employers to participate in the City’s Commendable Commutes Program. Increase bicycle and pedestrian mode share by increasing public awareness of the available bicycle and trail facilities and programs and encourage employers to participate in the City’s Commendable Commutes Program.
    - **Program 15.5:** Encourage mass transit in the Tri-Valley area by a variety of means, including private investment.
  - **Policy 16:** Reduce the percentage of average daily traffic trips taken during peak hours.

- **Policy 20:** Support paratransit services to elderly and disabled residents of Pleasanton.
- **Policy 21:** Support the use of alternative fuel vehicles.
  - o **Program 21.1:** Encourage the construction of infrastructure for and use of alternative fuel vehicles.
- **Policy 22:** Create and maintain a safe, convenient, and effective bicycle system which encourages increased bicycle use.
  - o **Program 22.2:** Prepare and adopt a citywide pedestrian and bicycle master plan. Identify areas where additional bicycle parking facilities are needed.
  - o **Program 22.3:** Integrate bicycle lanes or separate bikeways into street projects, wherever feasible.
  - o **Program 22.4:** Require design measures and facilities to accommodate access by pedestrians, bicycles, and transit in new developments, including bus shelters and turnabouts, bicycle parking facilities, bicycle and pedestrian trails, and transit-friendly designs for the site perimeter and internal circulation patterns.
  - o **Program 22.5:** Require appropriate bicycle-related improvements (i.e., work-place provision for showers, bicycle storage, bicycle lanes, etc.) with new development.
  - o **Program 22.6:** Maintain bicycle routes with adequate sweeping and pavement repairs.
  - o **Program 22.7:** Incorporate bicycle detection at signalized intersections.
- **Policy 23:** Create and maintain a safe and convenient pedestrian system which encourages walking as an alternative to driving.
  - o **Program 23.1:** Require developers to finance and install sidewalks and pedestrian and bicycle pathways, where appropriate, in future developments.
  - o **Program 23.4:** As part of the pedestrian and bicycle master plan, perform a comprehensive review of factors to improve the walkability and safety of pedestrian corridors.

### ***Pleasanton Pedestrian and Bicycle Master Plan***

The City of Pleasanton Pedestrian and Bicycle Master Plan (2010) includes the following policies related to bicycle circulation in new development areas that are relevant to this analysis:

- Encourage adequate and secure bicycle parking (i.e., a combination of outdoor racks, covered or indoor storage at workplaces and residences etc.) with new development.
- Adhere to City design standards for streets in new developments.
- Design complete streets serving pedestrians, bicyclists, motorists, transit riders of all ages and abilities, except where infeasible.
- Use design features in new development and redeveloped areas to encourage transit, bicycle, and pedestrian access, such as connections between activity centers and residential areas, and road design that accommodate transit vehicles. Require design measures and facilities to accommodate access by pedestrians, bicycles, and transit in new developments, including bus shelters and turnabouts, bicycle parking facilities, bicycle and pedestrian trails, and transit-friendly designs for the site perimeter and internal circulation patterns.

- Install signage regarding littering and enforcement and way-finding signage throughout trail system.
- Maximize traffic safety for bicyclists, pedestrians, transit users, and drivers.
- Minimize traffic impacts and cut-through traffic in new developments by incorporating traffic-calming elements and other design features.

### 3.14.3 - Methodology

Analysis in this section was based on the traffic analysis prepared by Fehr & Peers for the Base Plan. Six analysis scenarios are included in the traffic operations analysis. These scenarios are as follows:

- **Existing Conditions** – Existing volumes obtained from recent traffic counts (Fall 2013) and the roadway system configuration as of November 2013, reflective of conditions at the time the Notice of Preparation (NOP) was issued for the preparation of this Environmental Impact Report (EIR).
- **Existing With Project (Base Plan) Conditions** – Existing volumes obtained from traffic counts plus traffic estimated under the Base Plan. The roadway system is the same as Existing Conditions, except for improvements that are proposed under the Base Plan. Existing traffic that might shift to El Charro Road and Busch Road was estimated and included in the analysis of intersection operations.
- **Near-term No Project (without Base Plan) Conditions** – Existing volumes plus traffic estimates for approved and pending developments, such as Pleasanton Gateway, the CarrAmerica residential project and development at the East Pleasanton BART station, and traffic increases due to regional growth. Minor planned changes to intersection configurations are assumed; the El Charro Road extension is not included. This scenario reflects likely conditions over the next 10 years.
- **Near-Term With Project (Base Plan) Conditions** – Traffic volumes from Near-term No Project Conditions plus traffic estimated under the Base Plan, including roadway improvements proposed under the Base Plan. Existing traffic that might shift to El Charro Road and Busch Road was estimated and included in the analysis of intersection operations.
- **Cumulative No Project (without Base Plan) Conditions** – Projected traffic volumes and the projected roadway system using the City of Pleasanton Travel Demand Model. The traffic forecasts include Approved and Pending projects from the Near-Term No Project Conditions, in addition to buildout of land uses consistent with the General Plan and adopted Housing Element. The traffic generated by land use development assumed on the site in prior analyses was removed from the traffic forecasts to develop traffic forecasts for the Cumulative No Project condition (i.e., no development on the site). Some roadway system improvements were assumed, such as signaling the Sunol Boulevard/I-680 ramp terminal intersections, expanding the Fallon Road interchange, and widening of Isabel Avenue through Livermore.

- **Cumulative With Project (Base Plan) Conditions** – Traffic volumes from the Cumulative No Project Conditions plus changes from implementation of the Base Plan. This scenario includes the El Charro Road extension through the site, and associated traffic shifts.

## Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates are created on a daily basis and for the peak one-hour period during the morning and evening commute periods when traffic volumes on the adjacent streets are highest. Given the mixture of uses proposed within the project site, a mixed-use trip generation model was used in conjunction with published trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (9<sup>th</sup> Edition).

Vehicle trip generation rates documented in the Trip Generation Manual contains data primarily collected at suburban, single-use, freestanding sites and the rates do not account for key variables that can influence travel such as development density and scale, location efficiency, land use mix, urban design, and transit orientation, potentially overstating the level of vehicle activity within a project that is purposely being designed to encourage other modes of travel.

Therefore, a new method, MXD+, which recognizes mixed development effects on traffic generation, was used to estimate the proposed Base Plan's trip generation. Additional information regarding MXD+ is provided in Appendix H.

Table 3.14-4 shows the estimated trip generation for the proposed Base Plan. In terms of ITE trip generation, which represents the total trip generation of the project for all travel modes, the Base Plan would be expected to generate approximately 38,000 weekday daily trips, including about 3,230 morning peak-hour and 4,170 evening peak-hour trips. However, there are a number of factors that would reduce the overall number of trips made by a vehicle to/from this site, as some trips are expected to be internal to site as walk/bike trips, or transit trips. Internal capture represents trips that have both an origin and destination within Specific Plan Area, including residents who shop or work within the development, in addition to office or industrial workers that may come from outside the Specific Plan Area for one trip, but patronize local establishments such as a restaurant during lunch hour. These trips could be via an automobile or walk/bike trips. External transit, walk, and bike trips represent those trips that visit or leave the site via modes other than automobile. In addition, a pass-by trip reduction was applied to retail and restaurant land uses. Pass-by trips are defined as traffic that would otherwise already be on the adjacent roadways but the driver decides to stop at the site (e.g., to purchase an item on the way home from work).

Given the size of the Specific Plan Area, separate estimates were created for the northern and southern portions of the site as the level of internal walking and biking trips between the two areas is expected to be minimal. For the industrial portion of the site, all light industrial development was assumed, since it has the highest trip-generating potential of all potential industrial uses that could be constructed on the site. Depending on the types of future projects that are developed on the site, such as light manufacturing and warehouse type uses, the actual trip generation could be less than shown in Table 3.14-4.

Based on the MXD+ model applied to the southern plan area, it is expected that on a typical weekday, approximately 10 percent of trips would remain internal to the development. It is expected that approximately 2 percent of trips would arrive at/depart the site by walking or biking as the primary model of travel, with 2.5 percent of weekday trips via transit. The percent of trips that are expected to remain internal to the development varies by time of day, as detailed in Table 3.14-4. The remaining trips would occur via an automobile. Half of internal trips were assumed to occur via an automobile, while all trips to/from the school were assumed to occur via an automobile.

Internal trips and other trip reductions are less for the northern plan area, with approximately 2 percent of trips remaining internal, 2 percent via walking or biking, and 3 percent via transit.

When considering the ITE rates plus the MXD+ reductions described above, the Base Plan is expected to generate approximately 29,390 daily vehicle trips, including approximately 2,495 weekday morning peak-hour and 3,050 weekday evening peak-hour trips that would be added to the regional roadway network.

**Table 3.14-4: Trip Generation Estimates**

Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<b>South Plan Area<sup>1</sup></b>								
Single Family Homes <sup>2</sup>	1,300 units	12,380	244	731	975	819	481	1,300
Industrial - Light Industrial <sup>3</sup>	1,057 thousand square feet (ksf)	7,370	856	117	973	123	902	1,025
Retail <sup>4</sup>	30.5 ksf	3,140	47	29	76	130	140	270
Office <sup>5</sup>	152 ksf	1,800	235	32	267	42	207	249
<i>Destination Use<sup>6</sup></i>								
Restaurant	20 ksf	1,800	8	8	16	100	49	149
Retail	26 ksf	2,830	42	27	69	117	126	243
<i>Total Destination Use</i>		4,630	50	35	85	217	175	392
Elementary School <sup>7</sup>	650 students	840	161	132	293	48	50	98
<i>Total Trip Generation</i>		30,160	1,593	1,076	2,669	1,379	1,955	3,334
<b>Less Trip Reductions</b>								
<i>Internal Trips, including internal school trips<sup>8</sup></i>		-3,380	-271	-193	-464	-232	-324	-556
<i>External Walk/Bike Trips<sup>9</sup></i>		-570	-50	-33	-83	-27	-40	-67
<i>External Transit Trips<sup>10</sup></i>		-720	-46	-31	-77	-55	-78	-133
<i>Pass-by Trips<sup>11</sup></i>		-2,000	-24	-16	-40	-64	-92	-156
<b>External Vehicle Trips from South Plan Area</b>		<b>23,490</b>	<b>1,202</b>	<b>803</b>	<b>2,005</b>	<b>1,001</b>	<b>1,421</b>	<b>2,422</b>

**Table 3.14-4 (cont.): Trip Generation Estimates**

Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<b>North Plan Area<sup>12</sup></b>								
Office <sup>6</sup>	290 ksf	2,950	395	53	448	69	334	403
Retail <sup>5</sup>	60.5 ksf	4,900	71	44	115	205	223	428
<i>Total Trip Generation</i>		7,850	466	97	563	274	557	831
<b>Less Trip Reductions</b>								
<i>Internal Trips<sup>13</sup></i>		-170	-3	-1	-4	-6	-11	-17
<i>External Walk/Bike Trips<sup>14</sup></i>		-170	-10	-2	-12	-6	-11	-17
<i>External Transit Trips<sup>15</sup></i>		-250	-22	-4	-26	-17	-34	-51
<i>Pass-by Trips<sup>16</sup></i>		-1,360	-26	-5	-31	-38	-77	-115
<b>Net New Vehicle Trips to North Plan Area</b>		<b>5,900</b>	<b>405</b>	<b>85</b>	<b>490</b>	<b>207</b>	<b>424</b>	<b>631</b>
<b>Net New Vehicle Trips to Plan Area<sup>17</sup></b>		<b>29,390</b>	<b>1,607</b>	<b>888</b>	<b>2,495</b>	<b>1,208</b>	<b>1,845</b>	<b>3,053</b>

Notes:

1. The South Plan Area includes all proposed land uses south of Lake 'H' and Lake 'I'.
  2. Based on Trip Generation (9th Edition) trip generation rates for land use 210, Single Family Homes. Single Family Homes include development densities of up to 11 dwelling units per acre (d/a).
  3. Based on Trip Generation (9th Edition) trip generation rates for land use 110, General Light Industrial
  4. Based on Trip Generation (9th Edition) trip generation equations for land use 820, Shopping Center/General Retail
  5. Based on Trip Generation (9th Edition) trip generation equations for land use 710, General Office
  6. A total of 46,000 square feet of building area is proposed to be allowed at the Destination Use as shown on Figure 2. Although no land uses are currently proposed, it was assumed for the purposes of the EIR transportation analysis that a combination of retail and restaurant uses, might be provided to complement the recreational uses. Trip generation estimates based on Trip Generation (9th Edition) trip generation rates for land use 931, Quality Restaurant and trip generation equations for land use 820, Shopping Center/General Retail.
  7. Based on Trip Generation (9th Edition) trip generation rates for land use 520, Elementary School. Studies conducted for school districts within California indicate that approximately 0.35 elementary school student is generated by a single family household, resulting in approximately 455 elementary school students residing within the project site (70 percent of assumed maximum enrollment). For this study, 65 percent of students were assumed to come from the plan area, while the remaining students were assumed to come from outside the plan area. All trips to/from the school were assumed to occur via an automobile.
  8. For the South Plan Area, it is estimated that on a daily basis, 9.8 percent of trips would be internal to the development, with an 11.9 percent internal capture in the morning peak hour and 15.2 percent in the evening peak hour. For the purposes of the analysis of onsite intersection operations, half of these trips were assumed to occur via an automobile.
  9. For the South Plan Area, 1.9 percent of daily trips are expected to be external walk/bike trips, with 3.1 percent walk/bike trips in the morning peak hour and 2.0 percent in the evening peak hour. Half of the school trips are expected to be internal to the site, but all were assumed to occur via an automobile.
  10. For the South Plan Area, 2.4 percent of daily trips are expected to be transit trips to/from the site, with 2.9 percent transit trips in the morning peak hour and 4 percent in the evening peak hour.
  11. Pass-by trips for all commercial uses (retail and restaurant in this case) is 30 percent.
  12. The North Plan Area includes the proposed office and retail land use north of Lake 'I' as shown on Figure 2.
  13. For the North Plan Area, it is estimated that on a daily basis, 2.15 percent of trips would be internal to the development, with a 0.75 percent internal capture in the morning peak hour and 2 percent in the evening peak hour.
  14. For the North Plan Area, 2.2 percent of daily and morning trips, and 2 percent of evening peak-hour trips are expected to be external walk/bike trips.
  15. For the North Plan Area, 3.2 percent of daily trips are expected to be transit trips to/from the site, with 4.7 percent transit trips in the morning peak hour and 6 percent in the evening peak hour.
  16. Pass-by trips for all commercial uses is 30 percent.
- The net external vehicle trip estimates, not accounting for pass-by trips, presented above represent a 10-20% reduction compared to using the ITE methodology alone.  
Source: Fehr & Peers, March 2015.

**Base Plan Trip Distribution and Assignment**

Estimates of trip generation under the Base Plan are provided in Table 3.14-5. Estimates were developed based on the locations of complementary land uses, such as employment uses that might attract trips from residential uses, existing travel patterns in the area, and a select zone assessment from the City of Pleasanton travel demand model. For the purposes of evaluating internal intersection operations, half the non-school internal trips and all school-related trips were assigned to the roadway network as vehicle trips to ensure that intersections internal to the site internal are sized appropriately to accommodate vehicle, transit, pedestrian, and bicycle travel. Trips that would occur under the Base Plan were assigned to the roadway network based on the general directions of approach and departure, as shown on Exhibit 3.14-4.

**Table 3.14-5: Base Plan Trip Distribution**

Direction	Percentage (%)			
	Retail	Industrial	Residential	Office
I-580 West	5	30	10	15
I-580 East	5	30	10	15
I-680 North	5	10	10	15
I-680 South	5	10	15	10
East on Stanley Boulevard	10	10	10	10
East of Jack London Boulevard	10	5	5	5
Residential Neighborhood west of Project	15	0	0	5
Downtown Pleasanton	10	0	15	10
Hacienda Business Park/BART Station	15	5	15	5
North of Fallon Road	10	0	5	5
North on Tassajara Road	10	0	5	5
Total	100	100	100	100

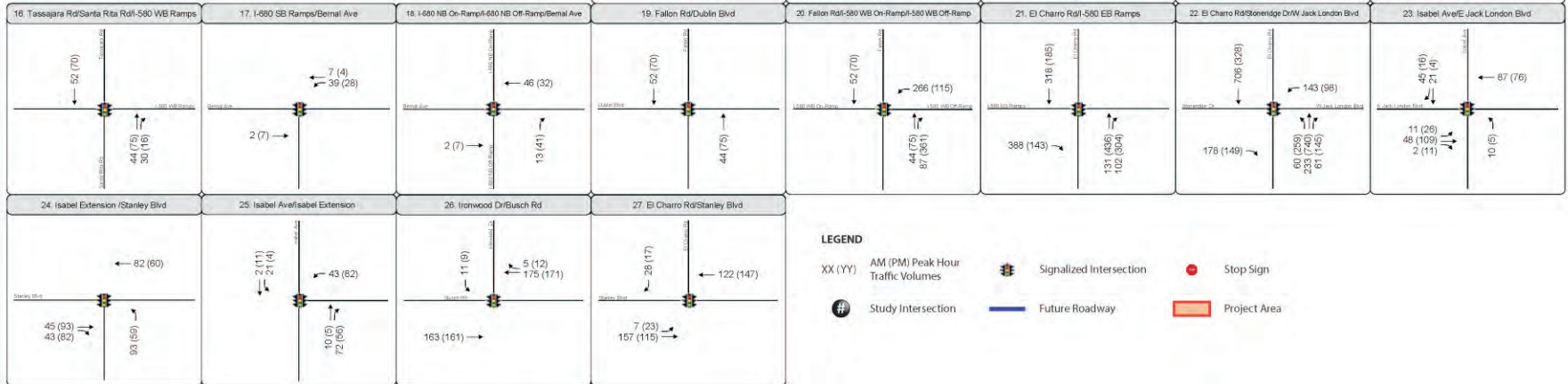
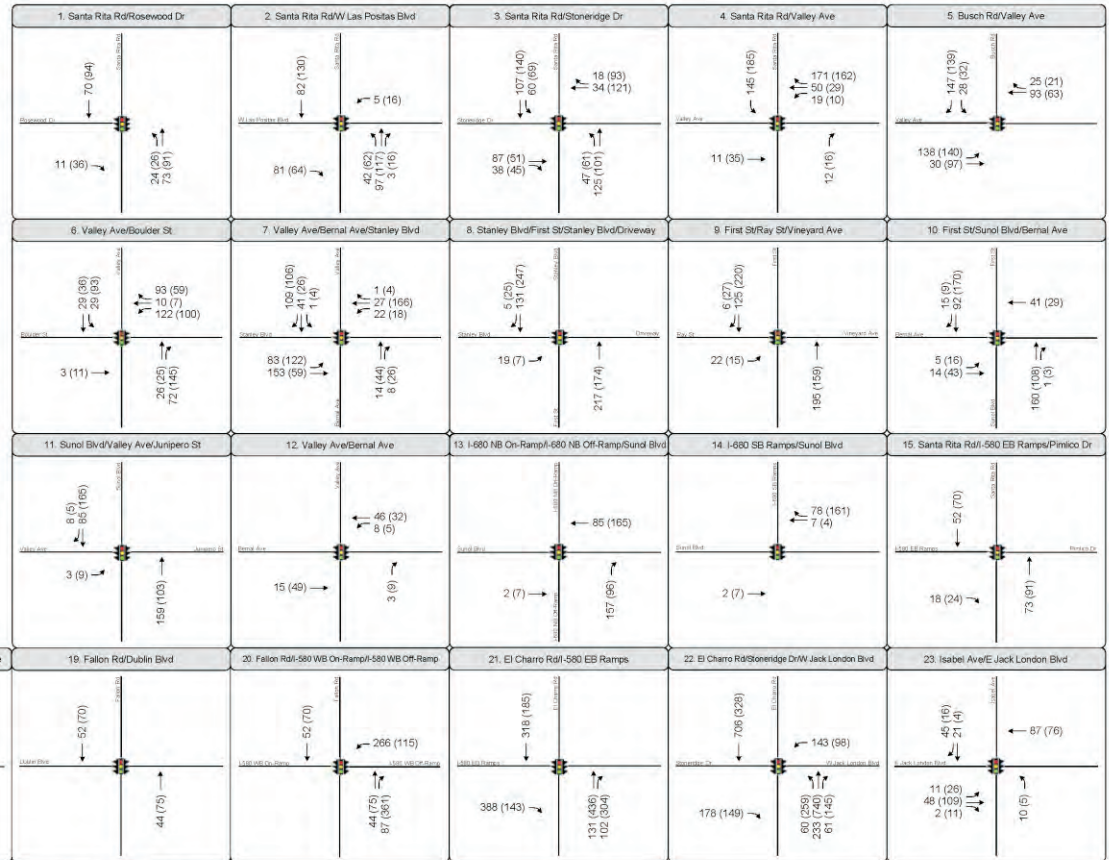
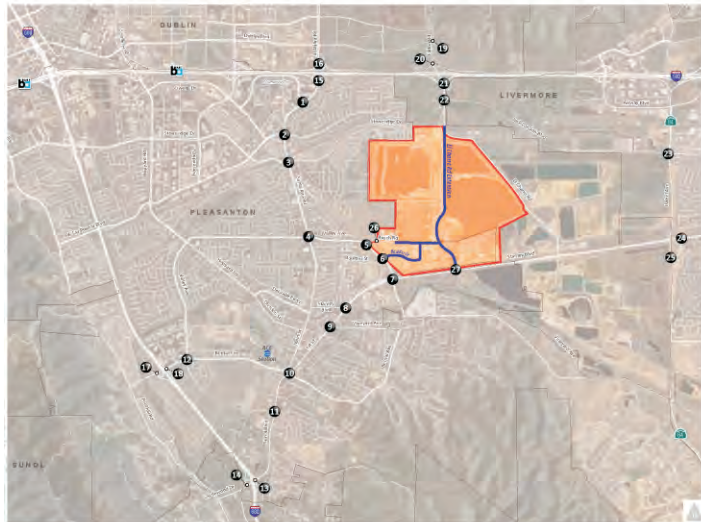
Source: Fehr & Peers, March 2015.

**Base Plan Circulation Improvements**

All roadways would be designed in accordance with the requirements of the Specific Plan and “Complete Street” guidelines. The following summarizes the main circulation improvements included in the Specific Plan.

El Charro Road would be extended as an arterial roadway from Stoneridge Drive south to Stanley Boulevard. The close proximity of the adjacent lakes creates limited right of way width conditions that would require two different street sections for this roadway. Both street sections provide four travel lanes, two in each direction, and a raised median.





Source: Fehr & Peers, 2015



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The unconstrained southern portion of El Charro Road would also provide on-street bicycle lanes, a sidewalk on the east side of the roadway, a multi-use trail on the west side, and a landscape buffer between the travel way and the multi-use trail. The northern constrained portion of El Charro Road between the lakes would include a reduced center median width and landscape buffer, and no on-street bike lanes. A multi-use trail would be situated on the west side of the roadway for pedestrians and bicyclists.

El Charro Road currently crosses the Arroyo Mocho just north of the Plan Area. An additional bridge would be constructed in this area to accommodate the additional El Charro Road travel lanes. The bridge would be approximately 30 feet wide and would contain the two northbound lanes. Just north of the bridge crossing, a separate left-turn access lane would be provided to accommodate the Pleasanton Gravel Company (PGC) and Vulcan mining operations to the south and east of the Plan Area. The design of these improvements would be in accordance with the Pre-Development and Cooperation Agreement for El Charro Road Alignment, dated September 18, 2006.

The extension of El Charro Road to Stanley Boulevard would also require the construction of a railroad underpass, similar to the existing underpass at Stanley Boulevard and Valley Avenue. The grade would be lowered on Stanley Boulevard by approximately 16 feet to accommodate the new railroad track undercrossing. An existing spur track line adjacent to the main tracks would be removed, also similar to the Stanley Boulevard and Valley Avenue undercrossing.

Busch Road would be extended through the Plan Area as a collector roadway from Valley Avenue to the El Charro Road extension. The existing four-lane cross-section of Busch Road would remain between Valley Avenue and Ironwood Drive. The roadway would then reduce to two travel lanes east of Ironwood Drive. Busch Road may be wider at intersection locations to accommodate traffic signal level of service. The Iron Horse Trail would extend along Busch Road, connecting to other trails within the Plan Area. Class II bicycle lanes would be provided on both sides of Busch Road, along with a sidewalk on the north side. A landscaped median, in addition to landscape buffers between the travel ways and the pedestrian areas, would also be provided. No parking would be permitted on Busch Road. Traffic control devices along Busch Road would include traffic signals, pedestrian signals, and—possibly—stop-controls.

Boulder Street would be extended through the Plan Area as a collector roadway from Valley Avenue to Busch Road in a curvilinear alignment. Two travel lanes would be provided along with landscape buffers. Bicycle lanes and sidewalks are also provided. Parking would be permitted on both sides of Boulder Street. Traffic control devices along Boulder Street would include traffic signals, pedestrian signals, and possibly stop-controls.

Residential Collector Streets would be provided throughout the Plan Area to connect local streets to the arterial street network. These facilities are designed to accommodate higher traffic volumes (3,000 to 6,000 vehicles per day) than local streets and would be planned with each development. They would include two travel lanes, on-street parking, landscape strips, and sidewalks. Bicyclists would be accommodated in the street.

Local Streets would be provided throughout the Plan Area, supplying access to individual dwelling units. These facilities are intended to accommodate 500 to 3,000 vehicles per day and would also be planned with each development. Depending upon the housing density served, local streets would provide two travel lanes, on-street parking, and landscape strips and sidewalks on both sides of the street. Rolled curbs would not be permitted. The vehicular travel lanes on local streets may be narrower than on residential collector streets. Bicyclists would be accommodated within the street travel lanes. Any variations to these standards would be subject to approval by the Director of Community Development.

An Industrial Collector Street would connect the planned industrial area to El Charro Road. Intersections along this roadway are to have large curb radii to accommodate the turning movements of trucks. It is expected that two travel lanes would be adequate, with on-street parking prohibited. Landscaped buffers and sidewalks would also be provided.

Private Streets and alleys are permitted within the Plan Area and subject to approval at the time of PUD development plan review.

### Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, transportation and traffic impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would:

- 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.
- 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.
- 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.
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- e) Result in inadequate emergency access.
- f) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks).

In the context of checklist item a), the following criteria were used to identify significant off-site intersection impacts of the proposed Base Plan. Off-site intersection impacts could be considered if the project would result in any of the following:

- Deterioration of a signalized intersection from LOS D (or better)<sup>3</sup> to LOS E or LOS F<sup>4</sup>
- At an intersection projected to operate at LOS E or F prior to the addition of project traffic, the project adds 10 or more trips
- Deterioration of a controlled movement at an unsignalized intersection from LOS E or better to LOS F, or at intersections where a controlled movement already operates at LOS F, one of the following:
  1. Project traffic results in satisfaction at the peak-hour volume traffic signal warrant;
  2. Project traffic increases minor movement delay by more than 30 seconds; or
  3. Where the peak-hour volume signal warrant is met without project traffic and delay cannot be measured, project increases traffic by 10 or more vehicles per lane on the controlled approach.

In the context of checklist item b), the Base Plan would 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 and highways:

- Exceed, either individually or cumulatively, an LOS standard established by the Alameda County Transportation Commission (ACTC) for designated roads or highways; or
- For a roadway segment of the Metropolitan Transportation System (MTS) network, the project would cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the V/C ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the project.

In the context of checklist item f), and using the City of Pleasanton General Plan and City of Pleasanton Pedestrian and Bicycle Master Plan as guides, significant impacts to pedestrian and bicycle facilities would occur if a project:

- Creates a hazardous condition that currently does not exist for pedestrians and bicyclists, or otherwise interferes with pedestrian accessibility to the site and adjoining areas; or
- Conflicts with an existing or planned pedestrian or bicycle facility; or
- Conflicts with policies related to bicycle and pedestrian activity adopted by the City of Pleasanton.

Also in the context of checklist item f), a project generally causes a significant impact to transit facilities and services if an element of it conflicts with existing or planned transit services. The evaluation of transit facilities shall consider if:

- A project creates demand for public transit services above the capacity which is provided, or planned;

<sup>3</sup> Intersections in Dublin and Livermore included in this assessment are subject to a LOS D standard, except for Isabel Avenue at Jack London Boulevard where the LOS may exceed the established standard (City of Livermore General Plan Policy CIR-4 .1, P4)

<sup>4</sup> There is no level of service standard for Gateway and Downtown intersections.

- A project or project-related mitigation disrupts existing transit services or facilities;<sup>5</sup>
- A project or project-related mitigation conflicts with an existing or planned transit facility; or
- A project or project-related mitigation conflicts with transit policies adopted by the City of Pleasanton, ACTC, Wheels (Livermore Amador Valley Transit Authority [LAVTA]), or BART for their respective facilities in the study area.

**Existing With Project Conditions**

**Impact TRANS-1: Development and land use activities contemplated by the Specific Plan would increase traffic volumes and cause transportation facilities to degrade below acceptable standard levels under existing with project conditions.**

**Impact Analysis**

This impact identifies potential ramifications to intersection operations under Existing With Project Conditions. Under this scenario, the roadway system is the same as the Existing Conditions, except for improvements that are proposed by the Base Plan. Roadway improvements were assumed at the intersections of Valley Avenue at Boulder Street, El Charro Road at Stanley Avenue, and Stoneridge Drive/West Jack London Boulevard at El Charro Road to accommodate Base Plan traffic. Existing traffic that might shift to El Charro Road and Busch Road was estimated and included in the analysis of intersection operations. Existing With Project traffic volumes are illustrated on Exhibit 3.14-5. The Existing With Project analysis results are presented in Table 3.14-6.

**Table 3.14-6: Existing With Project (Base Plan) Peak-Hour Intersection Levels of Service**

Intersection	Traffic Control <sup>1</sup>	Peak Hour	Existing No Project		Existing With Project	
			Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
Rosewood Drive at Santa Rita Road	Signal	AM	9	A	11	B
		PM	23	C	24	C
West Las Positas Boulevard at Santa Rita Road	Signal	AM	34	C	34	C
		PM	36	D	37	D
Stoneridge Drive at Santa Rita Road	Signal	AM	39	D	39	D
		PM	30	C	31	C
Valley Avenue at Santa Rita Road	Signal	AM	33	C	34	C
		PM	45	D	47	D
Valley Avenue at Busch Road	Signal	AM	11	B	15	B
		PM	6	A	8	A
Valley Avenue at Boulder Street	Signal	AM	7	A	16	B
		PM	9	A	16	B
Stanley Boulevard at Bernal Avenue/Valley Avenue	Signal	AM	31	C	29	C
		PM	30	C	34	C

<sup>5</sup> This includes disruptions caused by proposed-project driveways on transit streets and impacts to transit stops/shelters; and impacts to transit operations from traffic improvements proposed or resulting from a project.

**Table 3.14-6 (cont.): Existing With Project (Base Plan) Peak-Hour Intersection Levels of Service**

Intersection	Traffic Control <sup>1</sup>	Peak Hour	Existing No Project		Existing With Project	
			Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
Stanley Boulevard at First Street	Signal	AM	26	C	24	C
		PM	25	C	22	C
Ray Street/Vineyard Avenue at First Street	Signal	AM	27	C	26	C
		PM	28	C	30	C
Bernal Avenue at First Street/Sunol Boulevard	Signal	AM	41	D	42	D
		PM	33	C	40	D
Valley Avenue/Junipero Street at Sunol Boulevard	Signal	AM	29	C	29	C
		PM	19	B	19	B
Bernal Avenue at Valley Avenue	Signal	AM	30	C	31	C
		PM	25	C	26	C
I-680 Northbound Ramps at Sunol Boulevard	SSSC	AM	1 (21)	A (C)	1 (21)	A (C)
		PM	2 (46)	A (E)	2 (57)	A (F)
I-680 Southbound Ramp at Sunol Boulevard	SSSC	AM	6 (22)	A (C)	6 (22)	A (C)
		PM	5 (20)	A (C)	4 (21)	A (C)
I-580 EB Ramps/Pimlico Drive at Santa Rita Road	Signal	AM	21	C	22	C
		PM	23	C	25	C
I-580 WB Off-Ramp at Santa Rita Road/Tassajara Road	Signal	AM	7	A	8	A
		PM	7	A	7	A
I-680 Southbound Ramps at Bernal Avenue	Signal	AM	11	B	11	B
		PM	6	A	10	A
I-680 Northbound Ramps at Bernal Avenue	Signal	AM	16	B	16	B
		PM	18	B	19	B
Dublin Boulevard at Fallon Road	Signal	AM	7	A	8	A
		PM	11	B	12	B
I-580 Westbound Ramps at Fallon Road	Signal	AM	5	A	8	A
		PM	6	A	6	A
I-580 Eastbound Ramps at Fallon Road	Signal	AM	5	A	8	A
		PM	6	A	16	B
Stoneridge Drive at El Charro Road	Signal	AM	20	B	34	C
		PM	20	B	38	D
Jack London Boulevard at Isabel Avenue	Signal	AM	36	D	44	D
		PM	36	D	39	D
Stanley Boulevard at Isabel Avenue Extension	Signal	AM	19	B	19	B
		PM	11	B	11	B
Isabel Avenue Extension at Isabel Avenue	Signal	AM	6	A	6	A
		PM	7	A	8	A

**Table 3.14-6 (cont.): Existing With Project (Base Plan) Peak-Hour Intersection Levels of Service**

Intersection	Traffic Control <sup>1</sup>	Peak Hour	Existing No Project		Existing With Project	
			Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
Busch Road at Ironwood Drive	Signal	AM	6	A	6	A
		PM	6	A	6	A
Stanley Boulevard/El Charro Road	Signal	AM	—	—	24	C
		PM	—	—	23	C

Notes:  
**Bold** text/highlighted cell indicates unacceptable intersection operations.  
<sup>1</sup> Signal = Signalized Intersection; SSSC = Side-street stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign.  
<sup>2</sup> Delay presented in seconds per vehicle; for side-street stop-controlled (SSSC) intersections, delay presented in Intersection average (the delay and LOS of the worst approach is provided in parenthesis).  
<sup>3</sup> LOS = Level of Service.  
 Source: Fehr & Peers, March 2015.

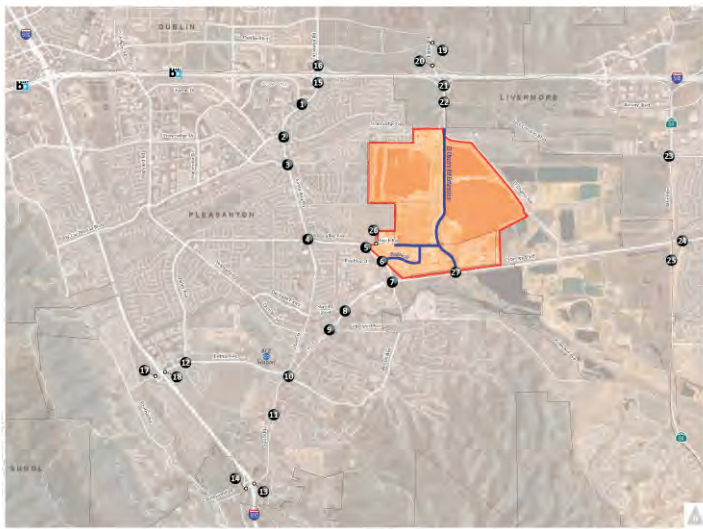
As shown in Table 3.14-6, all LOS would remain acceptable with the exception of the intersection of I-680 Northbound Ramps and Sunol Boulevard. The addition of Base Plan-generated vehicle trips during peak hours would worsen LOS E conditions for the side-street movement to LOS F conditions during the evening peak hour. Peak-hour signal warrants would not be met with the addition of Base Plan traffic. Because traffic generated by the Base Plan would degrade the side-street movement from E to F, this impact is considered significant. However, as shown in Table 3.14-7, with the installation of a traffic signal at this intersection, acceptable levels of service would occur and the impact would be reduced to less than significant.

**Table 3.14-7: Existing without Project and Existing with Project with Mitigation Peak-Hour Intersection Levels of Service**

Intersection	Peak Hour	Near Term No Project		Near Term With Project		Near Term With Project Plus Mitigation	
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>
I-680 Northbound Ramps at Sunol Boulevard	AM	1 (21)	A (C)	1 (21)	A (C)	11	B
	PM	2 (46)	A (E)	2 ( <b>57</b> )	A ( <b>F</b> )	8	A

Notes:  
**Bold** text/highlighted cell indicates unacceptable intersection operations.  
<sup>1</sup> Delay presented in seconds per vehicle; for side-street stop-controlled intersections, delay presented in Intersection average (the delay and LOS of the worst approach is provided in parenthesis).  
<sup>2</sup> LOS = Level of Service.  
 Source: Fehr & Peers, March 2015.





<p>1. Santa Rita Rd/Rosewood Dr</p>	<p>2. Santa Rita Rd/W Las Positas Blvd</p>	<p>3. Santa Rita Rd/Stoneridge Dr</p>	<p>4. Santa Rita Rd/Valley Ave</p>	<p>5. Busch Rd/Valley Ave</p>
<p>6. Valley Ave/Boulder St</p>	<p>7. Valley Ave/Bernal Ave/Stanley Blvd</p>	<p>8. Stanley Blvd/First St/Stanley Blvd/Driveway</p>	<p>9. First St/Ray St/Vineyard Ave</p>	<p>10. First St/Sunol Blvd/Bernal Ave</p>
<p>11. Sunol Blvd/Valley Ave/Jumpero St</p>	<p>12. Valley Ave/Bernal Ave</p>	<p>13. I-680 NB On-Ramp/I-680 NB Off-Ramp/Sunol Blvd</p>	<p>14. I-680 SB Ramps/Sunol Blvd</p>	<p>15. Santa Rita Rd/I-680 EB Ramps/Pimlico Dr</p>
<p>16. Tassajara Rd/Santa Rita Rd/I-680 WB Ramps</p>	<p>17. I-680 SB Ramps/Bernal Ave</p>	<p>18. I-680 NB On-Ramp/I-680 NB Off-Ramp/Bernal Ave</p>	<p>19. Fallon Rd/Dublin Blvd</p>	<p>20. Fallon Rmp/I-680 WB On-Ramp/I-680 WB Off-Ramp</p>
<p>21. El Chorro Rd/I-680 EB Ramps</p>	<p>22. El Chorro Rd/Stoneridge Dr/W Jack London Blvd</p>	<p>23. Isabel Ave/E Jack London Blvd</p>	<p>24. Isabel Extension /Stanley Blvd</p>	<p>25. Isabel Ave/Isabel Extension</p>
<p>26. Ironwood Dr/Busch Rd</p>	<p>27. El Chorro Rd/Stanley Blvd</p>	<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li>XX (YY) AM (PM) Peak Hour Traffic Volumes</li> <li># Study Intersection</li> <li>Signalized Intersection</li> <li>Future Roadway</li> <li>Stop Sign</li> <li>Project Area</li> <li>*Free* Right Turn</li> </ul>		

Source: Fehr & Peers, 2015



## Exhibit 3.14-5 Existing With Project Peak Hour Traffic Volumes

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### **Level of Significance Before Mitigation**

Potentially significant impact.

### **Mitigation Measures**

**MM TRANS-1** Future development within the Plan Area shall pay applicable City of Pleasanton traffic impact fees to fund the installation of a traffic signal at the intersection of I-680 Northbound Ramps and Sunol Boulevard.

### **Level of Significance After Mitigation**

Less than significant impact.

### **Near-Term With Project Conditions**

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**Impact TRANS-2: Development and land use activities contemplated by the Specific Plan would increase traffic volumes and cause transportation facilities to degrade below acceptable standard levels under near-term with project conditions.**

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### **Impact Analysis**

This scenario identifies intersection operations under Near-Term and Near-Term With Project Conditions. The Near-Term scenario provides baseline traffic projections to establish background conditions for evaluation of the Near-Term With Project Conditions and form the basis for determining and comparing resulting impacts.

Traffic volumes for Near-Term conditions (without the Base Plan) consist of existing volumes plus traffic generated by approved but not yet constructed and occupied developments in the area. Near-Term With Project Conditions are defined as Near-Term Conditions plus net new traffic generated by the proposed Base Plan, and potential traffic shifts associated with construction of the El Charro Road extension. Additional information regarding Near-Term Conditions and assumptions is provided in Appendix H.

Improvements at the Bernal Avenue interchange were assumed in the analysis of the Near-Term Conditions. Roadway improvements were assumed at the intersections of Valley Avenue at Boulder Street, El Charro Road at Stanley Avenue, and Stoneridge Drive/West Jack London Boulevard at El Charro Road to accommodate traffic generated under the Base Plan.

Results of the Near-Term and Near-Term With Project Conditions comparison are summarized in Table 3.14-8. Near-Term and Near-Term With Project Condition Traffic Volumes are shown in Exhibit 3.14-6 and Exhibit 3.14-7, respectively.

**Table 3.14-8: Near-Term and Near-Term With Project Peak-Hour Intersection Levels of Service**

Intersection	Traffic Control <sup>1</sup>	Peak Hour	Near Term No Project		Near Term With Project	
			Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
Rosewood Drive at Santa Rita Road	Signal	AM PM	11 22	B C	12 23	B C
West Las Positas Boulevard at Santa Rita Road	Signal	AM PM	36 39	D D	36 44	D C
Stoneridge Drive at Santa Rita Road	Signal	AM PM	45 34	D C	47 35	D D
Valley Avenue at Santa Rita Road	Signal	AM PM	35 44	D D	36 47	D D
Valley Avenue at Busch Road	Signal	AM PM	11 6	B A	15 9	B A
Valley Avenue at Boulder Street	Signal	AM PM	8 10	A A	18 15	B B
Stanley Boulevard at Bernal Avenue/Valley Avenue	Signal	AM PM	38 32	D C	46 35	D C
Stanley Boulevard at First Street	Signal	AM PM	27 24	C C	25 23	C C
Ray Street/Vineyard Avenue at First Street	Signal	AM PM	28 23	C C	29 22	C C
Bernal Avenue at First Street/Sunol Boulevard	Signal	AM PM	44 46	D D	48 57	D E
Valley Avenue/Junipero Street at Sunol Boulevard	Signal	AM PM	40 26	D C	44 27	D C
Bernal Avenue at Valley Avenue	Signal	AM PM	29 41	C D	30 43	C D
I-680 Northbound Ramps at Sunol Boulevard	SSSC	AM PM	4 (112) 6 (>120)	A (F) A (F)	4 (119) 8 (>120)	A (F) A (F)
I-680 Southbound Ramp at Sunol Boulevard	SSSC	AM PM	68 (>120) 12 (55)	F (F) B (F)	67 (>120) 12 (58)	F (F) B (F)
I-580 EB Ramps/Pimlico Drive at Santa Rita Road	Signal	AM PM	23 24	C C	23 26	C C
I-580 WB Off-Ramp at Santa Rita Road/Tassajara Road	Signal	AM PM	8 9	A A	8 8	A A
I-680 Southbound Ramps at Bernal Avenue	Signal	AM PM	21 9	C A	23 9	C A
I-680 Northbound Ramps at Bernal Avenue	Signal	AM PM	14 14	B B	14 15	B B

**Table 3.14-8 (cont.): Near-Term and Near-Term With Project Peak-Hour Intersection Levels of Service**

Intersection	Traffic Control <sup>1</sup>	Peak Hour	Near Term No Project		Near Term With Project	
			Delay	LOS	Delay	LOS
Dublin Boulevard at Fallon Road	Signal	AM	10	A	7	A
		PM	11	B	12	B
I-580 Westbound Ramps at Fallon Road	Signal	AM	6	A	9	A
		PM	7	A	9	A
I-580 Eastbound Ramps at Fallon Road	Signal	AM	5	A	9	A
		PM	7	A	10	B
Stoneridge Drive/Jack London Boulevard at El Charro Road	Signal	AM	19	B	38	D
		PM	32	C	44	D
Jack London Boulevard at Isabel Avenue	Signal	AM	41	D	50	D
		PM	42	D	45	D
Stanley Boulevard at Isabel Avenue Extension	Signal	AM	25	C	25	C
		PM	25	C	18	B
Isabel Avenue Extension at Isabel Avenue	Signal	AM	8	A	8	A
		PM	9	A	8	A
Busch Road at Ironwood Drive	Signal	AM	6	A	6	A
		PM	6	A	6	A
Stanley Boulevard/El Charro Road	Signal	AM	—	—	32	C
		PM	—	—	25	C

Notes:  
**Bold** text/highlighted cell indicates potentially unacceptable intersection operations.  
 Signal = Signalized Intersection; SSSC = Side-street stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign.  
 Delay presented in seconds per vehicle; for side-street stop-controlled intersections, delay presented in Intersection average (the delay and LOS of the worst approach is provided in parenthesis).  
 LOS = Level of Service.  
 Source: Fehr & Peers, March 2015.

As shown in Table 3.14-8, under the Near-Term (without project) scenario, the following intersections are anticipated to operate at LOS E or worse during the AM and/or PM peak hour.

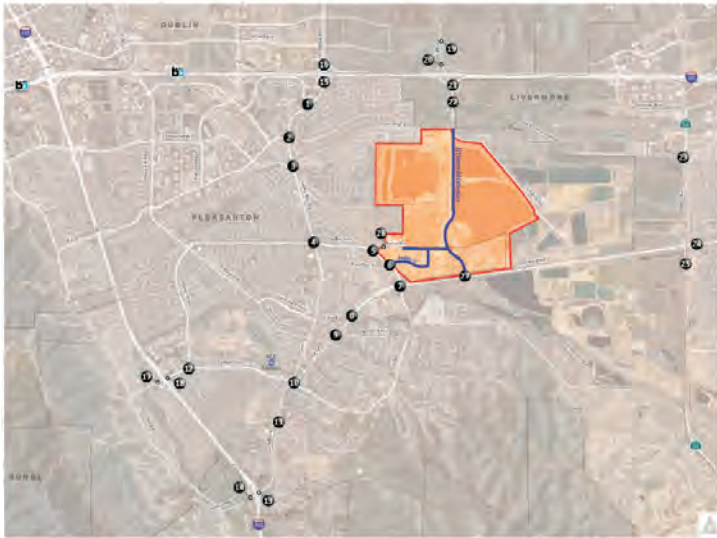
- Bernal Avenue at First Street/Sunol Boulevard
- I-680 Southbound Ramp at Sunol Boulevard
- I-680 Northbound Ramp at Sunol Boulevard

Although the I-680 Northbound Ramp at Sunol Boulevard intersection would operate at an overall acceptable level, delay for the side-street movement would increase to over 2-minutes, representing LOS F conditions. Signal warrants would also be satisfied at both the northbound and southbound ramp terminal intersections at Sunol Boulevard prior to the addition of Base Plan traffic in the near-term condition.

The remaining study intersections are projected to operate at an overall level of service D or better during both the AM and PM peak hours in the Near-Term (without project) scenario.

As shown on Table 3.14-8, with the addition of Base Plan traffic to the Near-Term conditions, LOS would remain acceptable with the exception of the following intersections:

- **Intersection 10 - Bernal Avenue at First Street/Sunol Boulevard** – The addition of Base Plan-generated vehicle trips during the PM peak hour would worsen LOS D conditions to LOS E. The City of Pleasanton’s General Plan identifies intersection improvements that would return this intersection to an acceptable level of service; however, this intersection is within the Downtown area and exempt from the City’s level of service standard. Therefore, this impact is considered less than significant and no mitigation is required.
- **Intersection 13 - I-680 Northbound Ramps at Sunol Boulevard** – The addition of Base Plan-generated vehicle trips during peak hours would exacerbate LOS F conditions in the near-term condition during both peak hours for the side-street movement turning from the off-ramp to Sunol Boulevard. Additionally, peak hour delay traffic signal warrants would be met prior to the addition of Base Plan traffic, and traffic generated by the Base Plan would contribute to the need for signalization. Implementation of mitigation requiring future development within the Plan Area to pay local traffic impact fees would fund the installation of a traffic signal at this location and, as shown in Table 3.14-9, would improve LOS to an acceptable level during both peak hours. After mitigation, impacts would be less than significant.
- **Intersection 14–I-680 Southbound Ramps at Sunol Boulevard** – The addition of Base Plan-generated vehicle trips during peak hours would exacerbate LOS F conditions in the near-term condition during the morning peak hour. Additionally, peak hour volume traffic signal warrants would be met prior to the addition of Base Plan traffic, and traffic generated by the Base Plan would contribute to the need for signalization. Implementation of mitigation requiring future development within the Plan Area to pay local traffic impact fees would fund the installation of a traffic signal at this location and, as shown in Table 3.14-9, would improve LOS to an acceptable level during both peak hours. After implementation of MM TRANS-1, impacts would be less than significant.



<p>1 Santa Rita Rd/Rosewood Dr</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>230 (530) 60 (100)</p> <p>460 (180) 1,280 (1,070)</p> <p>140 (310) 840 (1,350)</p>	<p>2 Santa Rita Rd/W Las Positas Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>120 (480) 130 (270)</p> <p>310 (190) 850 (1,000) 140 (120)</p> <p>600 (250) 880 (1,140) 140 (140)</p> <p>80 (90) 410 (160) 290 (180)</p>	<p>3 Santa Rita Rd/Stoneridge Dr</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>150 (610) 250 (630)</p> <p>60 (60) 860 (1,290) 220 (570)</p> <p>800 (270) 1,050 (1,270) 120 (360)</p> <p>80 (50) 450 (130) 450 (120)</p>	<p>4 Santa Rita Rd/Valley Ave</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>370 (290) 150 (110)</p> <p>250 (200) 600 (1,180) 500 (930)</p> <p>230 (150) 740 (880) 320 (180)</p> <p>80 (50) 300 (320) 200 (180)</p>	<p>5 Busch Rd/Valley Ave</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>110 (150) 650 (1,470)</p> <p>150 (120) 70 (80)</p> <p>70 (60) 1,670 (750)</p>
<p>6 Valley Ave/Boulder St</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>20 (10) 50 (210)</p> <p>30 (10) 680 (1,530) 10 (10)</p> <p>10 (10) 10 (10)</p>	<p>7 Valley Ave/Bernal Ave/Stanley Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>250 (180) 270 (1,090) 70 (100)</p> <p>150 (150) 350 (730) 150 (890)</p> <p>1,030 (280) 1,110 (300) 280 (120)</p>	<p>8 Stanley Blvd/First St/Stanley Blvd/Driveway</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>170 (220) 110 (110)</p> <p>470 (1,480) 1,140 (520) 0 (0)</p> <p>5 (10) 0 (10) 5 (0)</p>	<p>9 First St/Ray St/Vineyard Ave</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>100 (50) 100 (80)</p> <p>150 (45) 80 (42)</p> <p>90 (50) 250 (90) 170 (110)</p>	<p>10 First St/Sunol Blvd/Bernal Ave</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>170 (610) 320 (610) 220 (190)</p> <p>240 (230) 680 (540) 20 (70)</p> <p>50 (30) 740 (260) 400 (120)</p>
<p>11 Sunol Blvd/Valley Ave/Jumper St</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>150 (130) 80 (80) 280 (90)</p> <p>60 (60) 1,380 (600) 10 (30)</p> <p>30 (30) 170 (80) 210 (130)</p>	<p>12 Valley Ave/Bernal Ave</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>180 (500) 780 (1,110) 240 (300)</p> <p>710 (320) 90 (230) 200 (430)</p> <p>250 (150) 970 (630) 180 (210)</p>	<p>13 I-680 NB On-Ramp/I-680 NB Off-Ramp/Sund Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>160 (230) 60 (570)</p> <p>170 (350) 1,000 (770)</p>	<p>14 I-680 SB Ramps/Sunol Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>40 (50) 280 (660)</p> <p>290 (210) 470 (300)</p> <p>660 (440) 400 (360)</p>	<p>15 Santa Rita Rd/ 500 EB Ramps/Pinkoo Dr</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>460 (130) 140 (100) 550 (70)</p> <p>160 (6) 1,060 (1,330) 200 (260)</p> <p>200 (440) 210 (150)</p>

<p>16 Tessajara Rd/Santa Rita Rd/ 500 WB Ramps</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>590 (6) 1,060 (1,270)</p> <p>310 (300) 520 (350)</p> <p>980 (1,000) 460 (6)</p>	<p>17 I-680 SE Ramps/Bernal Ave</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>880 (510) 280 (4)</p> <p>650 (630) 550 (380)</p>	<p>18 I-680 NB On-Ramp/I-680 NB Off-Ramp/Bernal Ave</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>220 (100) 1,440 (1,670)</p> <p>1,130 (1,010) 1,070 (880)</p>	<p>19 Fallon Rd/Dubin Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>30 (120) 0 (0) 100 (360)</p> <p>60 (40) 730 (550) 0 (0)</p> <p>320 (210) 500 (640) 0 (0)</p>	<p>20 Fallon Rd/500 WB On-Ramp/500 WB Off-Ramp</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>540 (600) 220 (300)</p> <p>620 (270) 410 (610)</p> <p>280 (400) 10 (0) 170 (140)</p>	<p>21 El Charro Rd/500 EB Ramps</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>300 (340) 190 (350)</p> <p>330 (660) 250 (660)</p>	<p>22 El Charro Rd/Stoneridge Dr/W Jack London Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>190 (580) 150 (750) 10 (10)</p> <p>340 (530) 40 (20) 160 (640)</p> <p>370 (350) 800 (100) 10 (10)</p>	<p>23 Isabel Ave/E Jack London Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>210 (250) 190 (210)</p> <p>260 (170) 1,060 (1,330) 210 (630)</p> <p>430 (450) 490 (130) 410 (170)</p>
<p>24 Isabel Extension/Stanley Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>440 (2,110) 170 (370)</p> <p>2,060 (540) 500 (200)</p>	<p>25 Isabel Ave/Isabel Extension</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>1,020 (600) 310 (270)</p> <p>1,940 (1,260) 250 (400)</p> <p>330 (320) 340 (250)</p>	<p>26 Ironwood Dr/Busch Rd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>70 (120) 90 (90)</p> <p>120 (80) 10 (0)</p>	<p>27 El Charro Rd/Stanley Blvd</p> <p>AM (PM) Peak Hour Traffic Volumes</p> <p>610 (2,580)</p> <p>2,420 (880)</p>				

**LEGEND**

- XX (YY) AM (PM) Peak Hour Traffic Volumes
- Signalized Intersection
- Stop Sign
- "Free" Right Turn
- Study Intersection
- Future Roadway
- Project Area

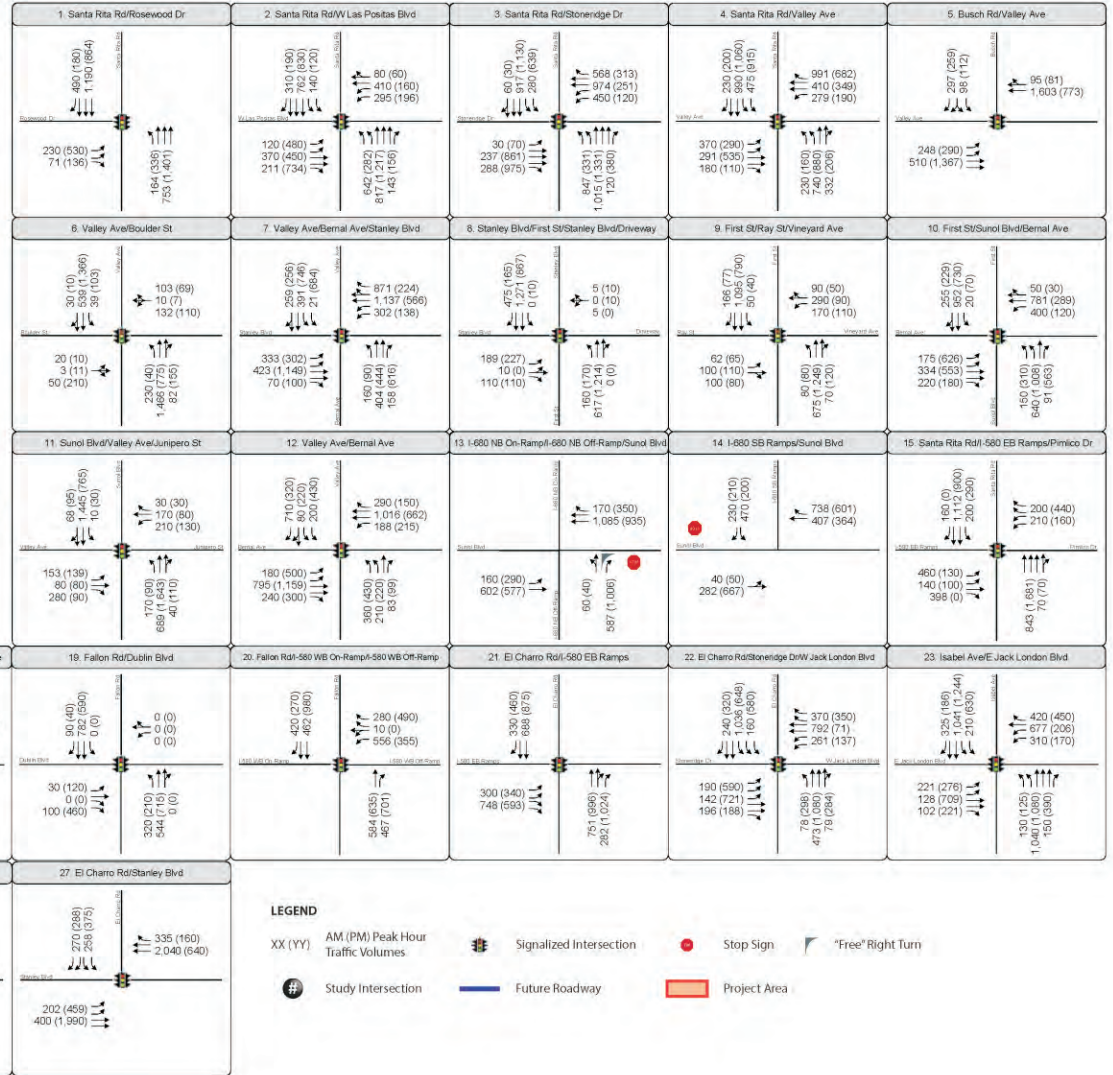
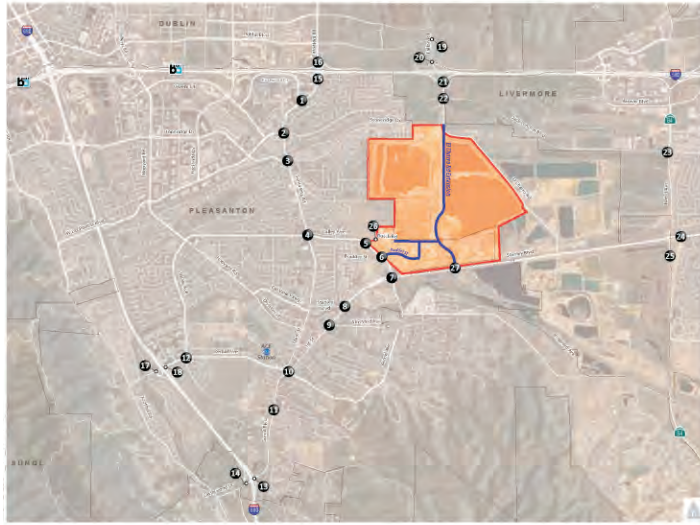
Source: Fehr & Peers, 2015



## Exhibit 3.14-6 Near-Term Without Project Peak Hour Traffic Volumes

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Source: Fehr & Peers, 2015



## Exhibit 3.14-7 Near-Term With Project Peak Hour Traffic Volumes

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**Table 3.14-9: Near-Term, Near-Term With Project, and Near-Term With Project With Mitigation Peak-Hour Intersection Levels of Service**

Intersection	Peak Hour	Near Term No Project		Near Term With Project		Near Term With Project Plus Mitigation	
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>
I-680 Northbound Ramps at Sunol Boulevard	AM	5 ( <b>112</b> )	A ( <b>F</b> )	4 ( <b>119</b> )	A ( <b>F</b> )	9	A
	PM	6 (> <b>120</b> )	A ( <b>F</b> )	8 (> <b>120</b> )	A ( <b>F</b> )	11	B
I-680 Southbound Ramp at Sunol Boulevard	AM	<b>68</b>	<b>F (F)</b>	<b>67</b>	<b>F (F)</b>	9	A
	PM	(> <b>120</b> ) 12 ( <b>55</b> )	B ( <b>F</b> )	(> <b>120</b> ) 12 ( <b>58</b> )	B ( <b>F</b> )	11	B

Notes:  
**Bold** text/highlighted cell indicates unacceptable intersection operations.  
 Delay presented in seconds per vehicle; for side-street stop-controlled intersections, delay presented in Intersection average (the delay and LOS of the worst approach is provided in parenthesis).  
 LOS = Level of Service.  
 Source: Fehr & Peers, March 2015.

In summary, with the implementation of mitigation, LOS impacts in the Near-Term With Project scenario would be less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

Implement MM TRANS-1 and the following:

- MM TRANS-2** Future development within the Plan Area shall pay applicable City of Pleasanton traffic impact fees to fund the installation of a traffic signal at the intersection of I-680 Southbound Ramps and Sunol Boulevard.

**Level of Significance After Mitigation**

Less than significant impact.

**Cumulative With Project Conditions**

**Impact TRANS-3: Development and land use activities contemplated by the Specific Plan would not increase traffic volumes that would cause transportation facilities to degrade below acceptable standard levels under cumulative with project conditions.**

**Impact Analysis**

This scenario identifies intersection operations under Cumulative and Cumulative With Project conditions. The Cumulative scenario uses traffic projections to establish background conditions for evaluating the project in the cumulative scenario; the background forms the basis for determining and comparing cumulative scenario impacts.

Preliminary traffic forecasts for the Cumulative scenario were obtained from City staff, representing existing traffic, plus traffic from approved and pending developments, as well as development that could occur under the current General Plan build-out outside of the Plan Area. Cumulative With Project conditions are defined as Cumulative conditions plus net new traffic generated by the proposed Base Plan, and potential traffic shifts associated with the construction of the El Charro Road extension. Additional information regarding the Cumulative conditions and assumptions is provided in Appendix H.

This scenario also includes a number of planned intersection improvements that are intended to accommodate buildout of the General Plan, including modifications to the Bernal Avenue and Sunol Boulevard interchanges with Interstate 680, and the Fallon Road interchange with Interstate 580. Intersection modifications are also proposed at several study intersections to better accommodate existing and future traffic flows.

Results of the Cumulative and Cumulative With Project Conditions comparison are summarized in Table 3.14-10. Cumulative and Cumulative With Project Conditions are shown in Exhibit 3.14-8 and Exhibit 3.14-9, respectively.

**Table 3.14-10: Cumulative Without and With Project Peak-Hour Intersection Levels of Service**

Intersection	Traffic Control <sup>1</sup>	Peak Hour	Cumulative No Project		Cumulative With Project	
			Delay	LOS	Delay	LOS
Rosewood Drive at Santa Rita Road	Signal	AM	8	A	9	A
		PM	22	C	23	C
West Las Positas Boulevard at Santa Rita Road	Signal	AM	30	C	30	C
		PM	30	C	33	C
Stoneridge Drive at Santa Rita Road	Signal	AM	46	D	47	D
		PM	30	C	32	C
Valley Avenue at Santa Rita Road	Signal	AM	32	C	39	D
		PM	54	D	50	D
Valley Avenue at Busch Road	Signal	AM	9	A	11	B
		PM	6	A	9	A
Valley Avenue at Boulder Street	Signal	AM	7	A	16	B
		PM	10	B	16	B
Stanley Boulevard at Bernal Avenue/Valley Avenue	Signal	AM	34	C	34	C
		PM	29	C	31	C
Stanley Boulevard at First Street	Signal	AM	27	C	23	C
		PM	31	C	28	C
Ray Street/Vineyard Avenue at First Street	Signal	AM	21	C	21	C
		PM	24	C	24	C
Bernal Avenue at First Street/Sunol Boulevard	Signal	AM	49	D	<b>58</b>	<b>E</b>
		PM	52	D	<b>63</b>	<b>E</b>

**Table 3.14-10 (cont.): Cumulative Without and With Project Peak-Hour Intersection Levels of Service**

Intersection	Traffic Control <sup>1</sup>	Peak Hour	Cumulative No Project		Cumulative With Project	
			Delay	LOS	Delay	LOS
Valley Avenue/Junipero Street at Sunol Boulevard	Signal	AM	47	D	53	D
		PM	29	C	32	C
Bernal Avenue at Valley Avenue	Signal	AM	49	D	50	D
		PM	41	D	43	D
I-680 Northbound Ramps at Sunol Boulevard	Signal	AM	8	A	11	B
		PM	7	A	11	B
I-680 Southbound Ramp at Sunol Boulevard	Signal	AM	9	A	9	A
		PM	18	B	17	B
I-580 EB Ramps/Pimlico Drive at Santa Rita Road	Signal	AM	23	C	22	C
		PM	20	B	20	B
I-580 WB Off-Ramp at Santa Rita Road/Tassajara Road	Signal	AM	7	A	7	A
		PM	7	A	7	A
I-680 Southbound Ramps at Bernal Avenue	Signal	AM	15	B	15	B
		PM	9	A	8	A
I-680 Northbound Ramps at Bernal Avenue	Signal	AM	18	B	19	B
		PM	11	B	11	B
Dublin Boulevard at Fallon Road	Signal	AM	41	D	41	D
		PM	51	D	51	D
I-580 Westbound Ramps at Fallon Road	Signal	AM	10	A	10	B
		PM	13	B	13	B
I-580 Eastbound Ramps at Fallon Road	Signal	AM	8	A	11	B
		PM	8	A	11	B
Stoneridge Drive/Jack London Blvd at El Charro Road	Signal	AM	39	D	42	D
		PM	45	D	51	D
Jack London Boulevard at Isabel Avenue	Signal	AM	<b>85</b>	<b>F</b>	<b>81</b>	<b>F</b>
		PM	<b>81</b>	<b>F</b>	<b>73</b>	<b>E</b>
Stanley Boulevard at Isabel Avenue Extension	Signal	AM	13	B	12	B
		PM	17	B	18	B
Isabel Avenue Extension at Isabel Avenue	Signal	AM	14	B	13	B
		PM	12	B	12	B
Busch Road at Ironwood Drive	Signal	AM	6	A	5	A
		PM	6	A	5	A
Stanley Boulevard/El Charro Road	Signal	AM	—	—	47	D
		PM	—	—	26	C

**Table 3.14-10 (cont.): Cumulative Without and With Project Peak-Hour Intersection Levels of Service**

Intersection	Traffic Control <sup>1</sup>	Peak Hour	Cumulative No Project		Cumulative With Project	
			Delay	LOS	Delay	LOS
Notes: <b>Bold</b> text/highlighted cell indicates <i>potentially</i> unacceptable intersection operations. Signal = Signalized Intersection; SSSC = Side-street stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign. Delay presented in seconds per vehicle; for side-street stop-controlled intersections, delay presented in Intersection average. LOS = Level of Service. Source: Fehr & Peers, March 2015.						

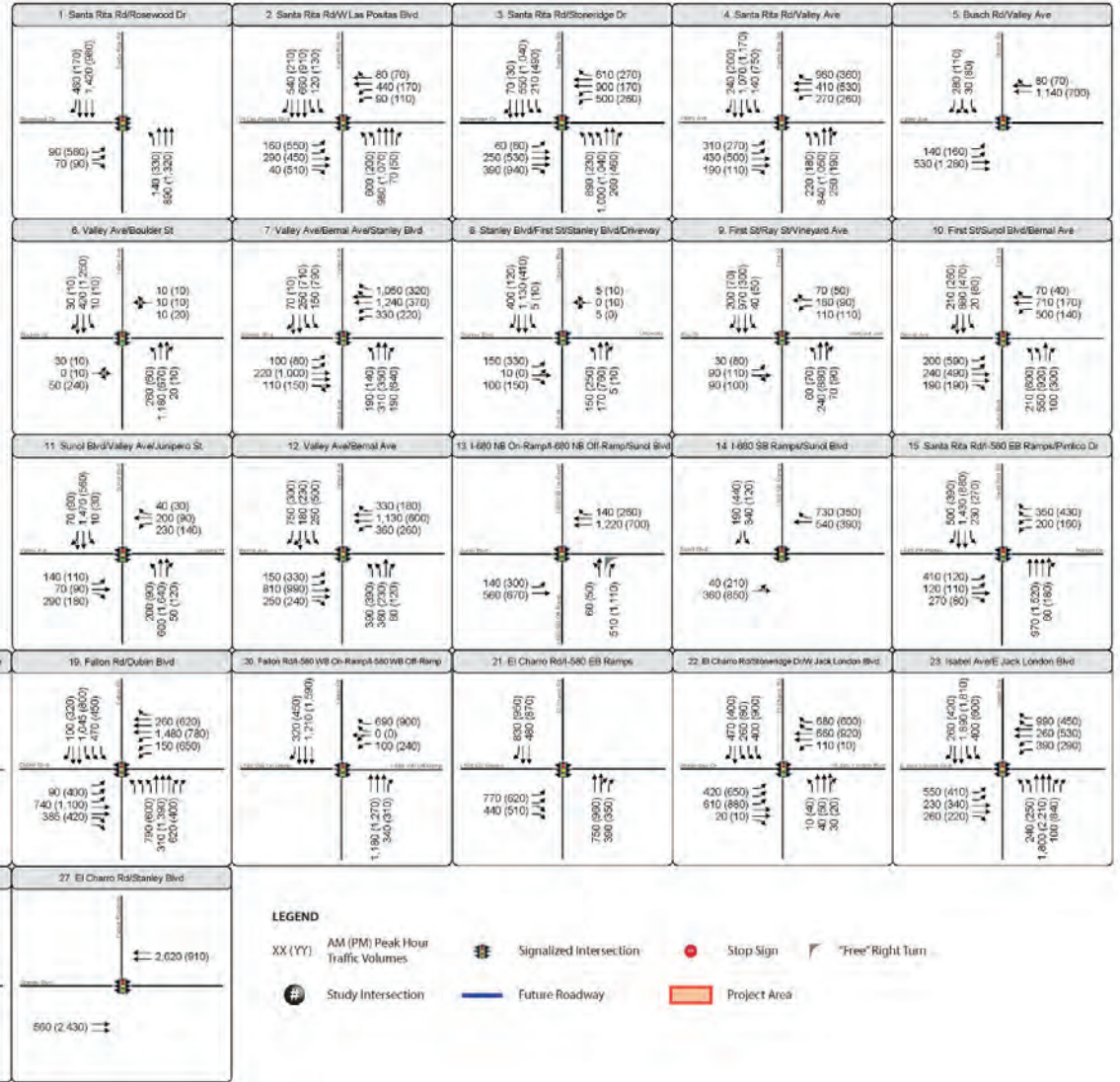
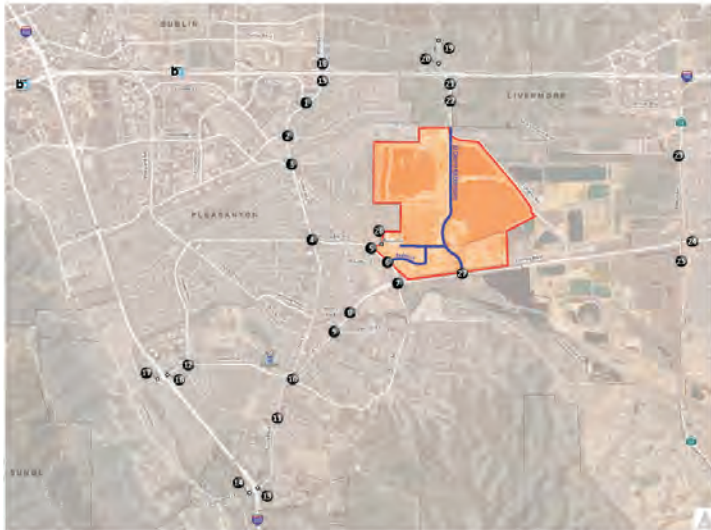
As shown in Table 3.14-10, under the Cumulative No Project scenario, intersection delay is anticipated to increase over the next 20 to 25 years, but in combination with planned roadway enhancements, all City of Pleasanton intersections are expected to operate within established level of service ranges. The Jack London Boulevard at Isabel Avenue intersection, located in the City of Livermore, is expected to operate at a LOE F during the morning and evening peak hours. As noted in the City of Livermore General Plan, this intersection is potentially exempt from the City of Livermore LOS D standard as it carries a high proportion of regional cut-through traffic and further widening above planned levels may not be feasible or desirable. Construction of the El Charro Road extension is expected to shift through traffic from Isabel Avenue, improving operations of the Jack London Boulevard at Isabel Avenue during both peak hours, even with the addition of Base Plan traffic.

As shown in Table 3.14-10, under the Cumulative With Project scenario, LOS would remain acceptable with the exception of the following intersection:

- Intersection 10–Bernal Avenue at First Street/Sunol Boulevard** – The addition of Base Plan-generated vehicle trips during the AM and PM peak hour would worsen LOS D conditions to LOS E. The City of Pleasanton’s General Plan identifies intersection improvements that would return this intersection to an acceptable level of service; however, this intersection is within the Downtown area and exempt from the City’s level of service standard.

Therefore, this impact is considered less than significant and no mitigation is required.

In summary, the Base Plan would not result in LOS impacts in the Cumulative With Project scenario and no mitigation is necessary.



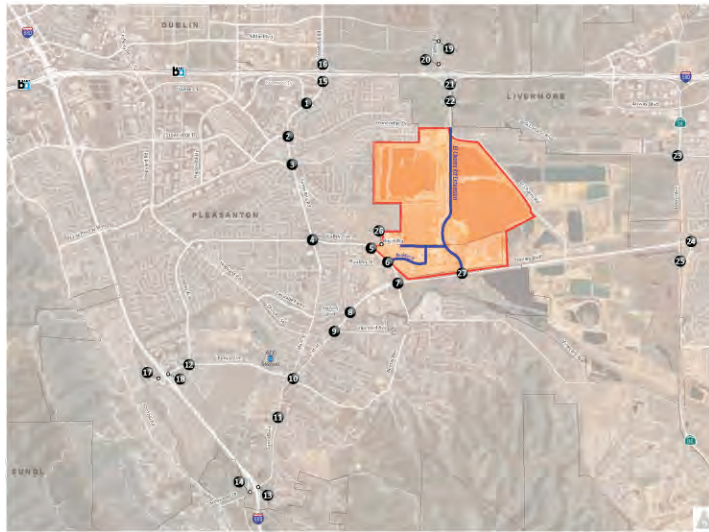
Source: Fehr & Peers, 2015



## Exhibit 3.14-8 Cumulative Without Project Peak Hour Traffic Volumes

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1. Santa Rita Rd/Rosewood Dr	2. Santa Rita Rd/W Las Postas Blvd	3. Santa Rita Rd/Stoneridge Dr	4. Santa Rita Rd/Valley Ave	5. Busch Rd/Valley Ave
<p>460 (170) 1,411 (974)</p> <p>90 (680) 61 (126)</p> <p>164 (366) 763 (1,301)</p>	<p>540 (210) 662 (640) 120 (130)</p> <p>80 (70) 444 (170) 95 (125)</p> <p>160 (550) 290 (450) 121 (574)</p> <p>640 (362) 877 (1,077) 73 (66)</p>	<p>70 (90) 577 (1,080) 270 (559)</p> <p>60 (80) 337 (581) 428 (965)</p> <p>628 (363) 324 (231) 500 (140)</p> <p>937 (291) 925 (1,331) 110 (360)</p>	<p>240 (200) 590 (1,010) 295 (875)</p> <p>310 (270) 441 (535) 190 (110)</p> <p>931 (522) 286 (270)</p> <p>220 (180) 696 (840) 262 (206)</p>	<p>487 (272) 58 (142)</p> <p>105 (91) 963 (733)</p> <p>278 (360) 560 (1,237)</p>
6. Valley Ave/Coulter St	7. Valley Ave/Bernal Ave/Stanley Blvd	8. Stanley Blvd/First St/Stanley Blvd/Chimney	9. First St/Ray St/Vineyard Ave	10. First St/Sunol Blvd/Bernal Ave
<p>39 (10) 321 (1,146) 39 (103)</p> <p>103 (69) 20 (17) 132 (120)</p> <p>30 (10) 50 (240)</p> <p>390 (69) 938 (665) 92 (163)</p>	<p>73 (116) 281 (736) 151 (654)</p> <p>781 (294) 1,347 (696) 352 (238)</p> <p>183 (202) 523 (1,269) 110 (150)</p> <p>190 (140) 324 (994) 198 (666)</p>	<p>405 (145) 5 (10)</p> <p>169 (337) 10 (3)</p> <p>100 (150)</p> <p>5 (10) 5 (10) 5 (10)</p>	<p>306 (67) 1,175 (660) 40 (50)</p> <p>70 (50) 180 (90) 110 (110)</p> <p>52 (95) 90 (100)</p> <p>60 (70) 595 (1,249) 70 (90)</p>	<p>225 (289) 872 (640) 20 (60)</p> <p>70 (40) 751 (199) 500 (140)</p> <p>205 (606) 354 (333) 190 (190)</p> <p>210 (600) 710 (1,028) 101 (603)</p>
11. Sunol Blvd/Valley Ave/Junipero St	12. Valley Ave/Bernal Ave	13. I-680 NB On-Ramp/I-680 NB Off-Ramp/Sunol Blvd	14. I-680 SB Ramps/Sunol Blvd	15. Santa Rita Rd/I-680 EB Ramps/Primico Dr
<p>78 (85) 1,850 (725) 10 (30)</p> <p>40 (30) 200 (90) 230 (140)</p> <p>143 (119) 70 (90) 290 (180)</p> <p>390 (69) 799 (1,743) 50 (120)</p>	<p>750 (300) 180 (230) 250 (600)</p> <p>330 (180) 1,176 (632) 368 (265)</p> <p>150 (330) 825 (1,039) 250 (240)</p> <p>390 (380) 390 (230) 83 (129)</p>	<p>140 (260) 1,305 (865)</p> <p>140 (300) 562 (677)</p> <p>60 (60) 667 (1,209)</p>	<p>490 (140) 340 (120)</p> <p>808 (511) 547 (394)</p> <p>40 (210) 362 (867)</p>	<p>500 (360) 1,432 (930) 230 (270)</p> <p>410 (120) 120 (110) 258 (24)</p> <p>350 (430) 200 (160)</p> <p>643 (1,551) 60 (60)</p>
16. Tassajara Rd/Santa Rita Rd/I-680 WB Ramps	17. I-680 SB Ramps/Bernal Ave	18. I-680 NB On-Ramp/I-680 NB Off-Ramp/Bernal Ave	19. Fallon Rd/Dubin Blvd	20. Fallon Rd/I-680 WB On-Ramp/I-680 WB Off-Ramp
<p>700 (460) 1,642 (1,260)</p> <p>280 (460) 480 (300)</p> <p>964 (1,235) 360 (426)</p>	<p>627 (434) 1,009 (488)</p> <p>652 (527) 180 (110)</p> <p>110 (150) 1,090 (1,010)</p>	<p>980 (990) 1,486 (832)</p> <p>300 (80) 1,442 (1,457)</p> <p>159 (69) 10 (10) 313 (381)</p>	<p>100 (320) 1,122 (680) 470 (450)</p> <p>260 (620) 1,480 (780) 150 (650)</p> <p>90 (400) 740 (1,100) 410 (420)</p> <p>750 (600) 354 (1,465) 620 (600)</p>	<p>320 (450) 1,312 (1,660)</p> <p>690 (600) 0 (0) 516 (395)</p> <p>1,224 (1,865) 367 (671)</p>
21. El Charro Rd/I-680 EB Ramps	22. El Charro Rd/Stoneridge Dr/W Jack London Blvd	23. Isabel Ave/E Jack London Blvd	24. Isabel Extension/Stanley Blvd	25. Isabel Ave/Isabel Extension
<p>690 (600) 699 (1,075)</p> <p>770 (620) 656 (733)</p> <p>1,021 (1,416) 472 (644)</p>	<p>680 (600) 652 (771) 311 (257)</p> <p>400 (550) 472 (851) 206 (186)</p> <p>178 (329) 413 (1,200) 208 (234)</p>	<p>680 (600) 652 (771) 311 (257)</p> <p>561 (436) 278 (489) 262 (231)</p> <p>990 (450) 347 (606) 390 (290)</p> <p>290 (655) 1,600 (2,010) 100 (600)</p>	<p>2,232 (1,280) 410 (300)</p> <p>373 (239) 320 (880)</p> <p>1,125 (1,843) 443 (362)</p>	<p>1,722 (2,271) 361 (534)</p> <p>500 (370) 353 (322)</p> <p>1,900 (1,095) 332 (696)</p>
26. Ironwood Dr/Busch Rd	27. El Charro Rd/Stanley Blvd			
<p>120 (90) 21 (19)</p> <p>25 (32) 435 (301)</p> <p>80 (140) 303 (331)</p>	<p>330 (328) 196 (315)</p> <p>445 (150) 2,150 (880)</p> <p>312 (479) 560 (2,050)</p>			

**LEGEND**

XX (YY) AM (PM) Peak Hour Traffic Volumes

Signalized Intersection

Stop Sign

"Free" Right Turn

Study Intersection

Future Roadway

Project Area

Source: Fehr & Peers, 2015



## Exhibit 3.14-9 Cumulative With Project Peak Hour Traffic Volumes

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### **Level of Significance Before Mitigation**

Less than significant impact.

### **Mitigation Measures**

No mitigation is necessary.

### **Level of Significance After Mitigation**

Less than significant impact.

## **Congestion Management Program**

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**Impact TRANS-4: Development and land use activities contemplated by the Specific Plan would conflict with Alameda County Transportation Commission requirements.**

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### **Impact Analysis**

This impact evaluates the Specific Plan's potential to conflict with ACTC LOS standards for MTS roadways identified in the County's Congestion Management Plan (CMP).

The following freeway and surface street segments located in Pleasanton and Livermore are identified as MTS roadways and are included in this analysis:

- Interstate 580 (three segments)
- Interstate 680 (four segments)
- Stoneridge Drive (two segments)
- State Route 84 ([SR-84] Isabel Avenue/Vallecitos Road) (four segments)
- Stanley Boulevard (three segments)
- Santa Rita Road (two segments)

The Alameda Countywide Travel Demand Model (ACTC model) was used to forecast 2020 and 2035 traffic volumes on the MTS roadway system. The results of the ACTC model were used to forecast the No Project condition for 2020 and 2035. Project trips were distributed to the MTS roadway segments identified above (including both freeways and surface streets) to determine the With Project volumes for 2020 and 2035.

Operations of the MTS freeway and surface street segments were assessed based on volume-to-capacity (V/C) ratios. For freeway segments, a per-lane capacity of 2,000 vehicles per hour was used. For surface streets, a per-lane capacity of 800 vehicles per hour was used. Roadway segments with a V/C ratio greater than 1.0 are assigned LOS F.

### **2020 Conditions**

Results of the analysis (as provided in Appendix H) indicate that the proposed Base Plan could worsen already deficient operations on the following five segments in 2020 by increasing the V/C ratio by more than 0.03 or resulting in unacceptable operations. However, as indicated below, payment of the City of Pleasanton and Tri-Valley Regional impact fees would fund improvements to the impacted segments or, where impacted segment improvements are not appropriate, would fund

improvements to parallel corridors in the region, providing alternate routes and additional capacity. Payment of these fees would reduce impacts to less than significant. The five 2020 impacted segments and improvements are provided below.

- **Interstate 680 between Sunol Boulevard and SR-84.** The proposed Base Plan would result in deficient operations on I-680 southbound between Sunol Boulevard and SR-84 east by worsening LOS E to LOS F conditions. Payment of traffic impact fees would contribute to the following improvements: I-680 is planned to be widened to provide continuous high-occupancy-vehicle lanes in both the northbound and southbound directions, from the current terminus north to Alcosta Boulevard and south from Alcosta Boulevard to the current start at SR-84.<sup>6</sup> Improvements to SR-84 are also planned that would provide parallel capacity.
- **Stanley Boulevard between Isabel Avenue and Vineyard Avenue.** The proposed Base Plan would worsen already deficient operations on Stanley Boulevard east of Valley Avenue by increasing the volume-to capacity ratio by more than 0.03, and result in deficient conditions on Stanley Boulevard between Valley Avenue and Ray Street. Widening Stanley Boulevard to provide three travel lanes in each direction would result in acceptable operations on this roadway segment. However, Stanley Boulevard is a major commuter thoroughfare built out to its ultimate configuration as envisioned by the City of Pleasanton General Plan. Further widening to this roadway could encourage additional through traffic that should use the regional freeway roadway network, including the I-680 and I-580 corridor. Additionally, intersections along Stanley Boulevard are projected to operate at acceptable service levels in the near-term condition, indicating that the MTS analysis does not consider the added capacity at intersections, which is usually the constraint within the transportation system. Payment of traffic impact fees would contribute to improvements to parallel corridors in the region that would provide alternative routes and additional capacity in the region.
- **Santa Rita Road between Valley Avenue and Las Positas Road.** The proposed Base Plan would worsen already deficient operations on Santa Rita Road between Valley Avenue and Las Positas Road in 2020 by increasing the V/C ratio by more than 0.03. Widening of Santa Rita Road to provide additional vehicular capacity would result in acceptable vehicular operations. However, Santa Rita Road is a major thoroughfare built out to its ultimate configuration as envisioned by the City of Pleasanton General Plan. Further widening to this roadway could encourage additional through traffic that should use the regional freeway roadway network, including the I-680 and I-580 corridor. Additionally, intersections along Santa Rita Road are projected to operate at acceptable service levels in the near-term condition, indicating that the MTS analysis does not consider the added capacity at intersections. Payment of traffic impact fees would contribute to improvements to parallel corridors in the region that would provide alternative routes and additional capacity in the region.

<sup>6</sup> HOV/Express lanes are currently under construction on I-680 and are expected to be completed in fall 2015. The I-680 Northbound Express Lanes project is currently in the environmental documentation phase of project development. Preparation of preliminary engineering and environmental technical studies are underway to support preparation of an Environmental Impact Report/ Environmental Assessment (EIR/EA) document. The Administrative Draft of the Environmental Document (ED) was released for public review in November 2014; two public meetings will be held in Pleasanton and Fremont in January 2015. Final project and environmental approvals are expected in fall 2015.

- **Isabel Avenue between Stanley Boulevard and Concannon Boulevard.** The proposed Base Plan would worsen already deficient operations on Isabel Avenue between Stanley Boulevard and Concannon Boulevard in 2020 by increasing the V/C ratio by more than 0.03. Widening of Isabel Avenue to provide additional vehicular capacity would result in acceptable vehicular operations; however, this segment of Isabel Avenue has been widened to its ultimate configuration. Payment of traffic impact fees would contribute to improvements to parallel corridors in the region that would provide alternative routes and additional capacity in the region.
- **Vallecitos Road between I-680 and Isabel Avenue.** The proposed Base Plan would worsen already deficient operations on Vallecitos Road between I-680 and Isabel Avenue by increasing the V/C ratio by more than 0.03. This segment of Vallecitos Road is planned to be widened to provide two travel lanes in each direction.<sup>7</sup> Payment of traffic impact fees would help fund these improvements.

For each of the above potentially significant impacts, payment of traffic impact fees would reduce impacts to less than significant.

#### *2035 Conditions*

Under year 2035 Conditions, the addition of Base Plan trips would increase the V/C ratio of a segment already operating at LOS F by more than 0.03 for four segments. However, as indicated below, payment of the City of Pleasanton and Tri-Valley Regional impact fees either would fund improvements to the impacted segment or, where impacted segments improvements are not appropriate, improvements to parallel corridors in the region providing alternative routes and additional capacity. Payment of these fees would reduce impacts to less than significant. The four impacted segments and the programmed improvements are provided below:

- **Stanley Boulevard between Isabel Avenue and Vineyard Avenue.** The proposed Base Plan would worsen already deficient operations on Stanley Boulevard from Ray Street to Isabel Avenue by increasing the V/C ratio by more than 0.03. Widening Stanley Boulevard to provide three travel lanes in each direction would result in acceptable operations on this roadway segment. However, Stanley Boulevard is a major commuter thoroughfare built out to its ultimate configuration as envisioned by the Pleasanton General Plan. Further widening of this roadway could encourage additional through traffic that should use the regional freeway roadway network, including the I-680 and I-580 corridors. Additionally, intersections along Stanley Boulevard are projected to operate at acceptable service levels in the cumulative scenario, indicating that the MTS analysis does not consider the added capacity at intersections, which is usually the constraint within the transportation system. Payment of traffic impact fees would contribute to improvements to parallel corridors in the region that would provide alternative routes and additional capacity in the region.

<sup>7</sup> Improvements to Vallecitos Road (SR 84) are sponsored by Alameda CTC. The Project Approval and Environmental Document Phase of project expected to start in spring 2015. The project is currently funded through the environmental phase, additional funding has been identified in the 2014 Transportation Expenditure Plan, and the supporting Measure was approved by Alameda County voters on November 4, 2014.

- **Santa Rita Road between Valley Avenue and Las Positas Road.** The proposed Base Plan would worsen already deficient operations on Santa Rita Road between Valley Avenue and Las Positas Road in 2035 by increasing the V/C ratio by more than 0.03. Widening of Santa Rita Road to provide additional vehicular capacity would result in acceptable vehicular operations. However, Santa Rita road is a major thoroughfare built out to its ultimate configuration as envisioned by the Pleasanton General Plan. Further widening to this roadway could encourage additional through traffic that should use the regional freeway roadway network, including the I-680 and I-580 corridor. Additionally, intersections along Santa Rita Road are projected to operate at acceptable service levels in the cumulative condition, indicating that the MTS analysis does not consider the added capacity at intersections. Payment of traffic impact fees would contribute to improvements to parallel corridors in the region that would provide alternative routes and additional capacity in the region.
- **Isabel Avenue between Stanley Boulevard and Concannon Boulevard.** Widening of Isabel Avenue to provide additional vehicular capacity would result in acceptable vehicular operations; however, this segment of Isabel Avenue has been widened to its ultimate configuration. Payment of traffic impact fees would contribute to improvements to parallel corridors in the region that would provide alternative routes and additional capacity in the region.
- **Vallecitos Road between I-680 and Isabel Avenue.** The proposed Base Plan would worsen already deficient operations on Isabel Avenue between Stanley Boulevard and Concannon Boulevard in 2035 by increasing the V/C ratio by more than 0.03. This segment of Vallecitos Road is planned to be widened to provide two travel lanes in each direction; however, further widening beyond two lanes in each direction would be required to provide acceptable service levels under 2035 conditions. Payment of traffic impact fees would contribute to planned improvements and improvements to parallel corridors in the region that would provide alternative routes and additional capacity in the region.

As indicated in the Traffic Impact Analysis, each impacted segment is either programmed for future improvements or is already built out to its ultimate configuration. Future projects within the Plan Area would be required to pay applicable fair-share City of Pleasanton and Tri-Valley Regional traffic impact fees that would fund improvements to the impacted segments or, where impacted segment improvements are not appropriate, would fund improvements to parallel corridors in the region providing alternative routes and additional capacity. Payment of these fees would reduce impacts to less than significant.

### ***Level of Significance Before Mitigation***

Potentially significant impact.

### ***Mitigation Measures***

**MM TRANS-4** Future development within the Plan Area shall pay City of Pleasanton and Tri-Valley Regional traffic impact fees to fund local and regional roadway improvements to parallel corridors and impacted roadway segments to provide alternative routes and additional capacity in the region.

**Level of Significance After Mitigation**

Less than significant impact.

**Onsite Cumulative Conditions**

**Impact TRANS-5: Development and land use activities contemplated by the Specific Plan would not increase traffic volumes that would cause onsite transportation facilities to degrade below acceptable standard levels under cumulative with project conditions.**

**Impact Analysis**

As shown on Exhibit 3.14-10, a number of internal intersections would be constructed within the Plan Area. Operations of the primary internal intersections along El Charro Road, Busch Road and Boulder Avenue were evaluated, based on Cumulative peak-hour traffic volumes and lane configurations, as shown on Exhibit 3.14-11. These volumes reflect that all school trips would occur via an automobile, and that half of internal trips, such as a trip between a residential location and the retail center, would occur via an automobile. This presents a conservative assessment of internal intersection operations, as the site is being designed to encourage walking and bicycling trips within the development, and oversizing the internal infrastructure could serve as a deterrent to non-auto trips.

Since intersections internal to the Specific Plan area have not been constructed, the analysis was iterative to identify recommended intersection cross-sections and traffic controls that would achieve the Specific Plan goal of providing complete streets within the Plan area that accommodate all travel modes. Design guidelines for streets within Specific Plan Area are provided within the Specific Plan document. All future development within the Specific Plan Area would follow these design guidelines.

The analysis includes a single travel lane in each direction on Busch Road and Boulder Street, and two lanes in each direction on El Charro Road. Left-turn pockets were included for all left-turn movements. Results of the intersection analysis assuming side-street stop-control (where traffic on the minor street stops), all-way stop-control (where all vehicles must stop), roundabouts, and traffic signals are provided. Operations of the internal intersections are presented in Table 3.14-11 for the Base Plan buildout condition based on the lane configurations shown in Exhibit 3.14-11.

**Table 3.14-11: Project (Base Plan) Buildout Conditions Peak-Hour Internal (Onsite) Intersection LOS Summary**

Intersection	Peak Hour	Side-Street Stop		All-Way Stop		Roundabout		Traffic Signal	
		Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
Busch Road/Roadway <sup>1</sup>	AM	5 (20)	A (C)	11	B	7	A	26	C
	PM	4 (17)	A (C)	11	B	7	A	23	C
Busch Road/ Neighborhood Loop Road	AM	6 (18)	A (C)	11	A	7	A	26	C
	PM	4 (13)	A (B)	9	A	6	A	23	B

**Table 3.14-11 (cont.): Project (Base Plan) Buildout Conditions Peak-Hour Internal (Onsite) Intersection LOS Summary**

Intersection	Peak Hour	Side-Street Stop		All-Way Stop		Roundabout		Traffic Signal	
		Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
Busch Road/Boulder Street	AM	5 (14)	A (B)	11	B	6	A	22	B
	PM	5 (21)	A (B)	11	B	7	A	19	B
Busch Road/Retail Entry	AM	2 (12)	A (B)	11	B	7	A	18	B
	PM	6 (21)	A (C)	14	B	9	A	16	B
Boulder Street/ Neighborhood Connector	AM	7 (13)	A (B)	8	A	5	A	11	B
	PM	9 (16)	B (C)	9	A	5	A	18	B
El Charro Road/Quarry Entry	AM PM	Potential LOS F for Southbound Left-turn Trucks into Quarry; LOS A for vehicles on El Charro. Depends on the ultimate number of quarry vehicles.		LOS F/Not Recommended		Two lane roundabout not recommended		8 4	A A
El Charro Road/ Office/Retail Entry	AM	LOS F/Not Recommended		LOS F/Not Recommended		Two lane roundabout not recommended		23	B
	PM	Recommended		Recommended		roundabout not recommended		22	B
El Charro Road/ Destination Use Entry	AM	LOS F/Not Recommended		LOS F/Not Recommended		Two lane roundabout not recommended		6	A
	PM	Recommended		Recommended		roundabout not recommended		16	B
El Charro Road/ Neighborhood Loop Road	AM	LOS F/Not Recommended		LOS F/Not Recommended		Two lane roundabout not recommended		12	A
	PM	Recommended		Recommended		roundabout not recommended		9	B
El Charro Road/Busch Road	AM	LOS F/Not Recommended		LOS F/Not Recommended		Two lane roundabout not recommended		31	C
	PM	Recommended		Recommended		roundabout not recommended		30	C
El Charro Road/ Industrial Entry	AM	LOS F/Not Recommended		LOS F/Not Recommended		Two lane roundabout not recommended		16	D
	PM	Recommended		Recommended		roundabout not recommended		34	C

Notes:

*Italics* indicates the recommended traffic control.

<sup>1.</sup> Signal = Signalized Intersection; SSSC = Side-street stop-controlled intersections: traffic on the main street does not stop while traffic on the side street is controlled by a stop sign.

















<sup>2.</sup> Delay presented in seconds per vehicle; for side-street stop-controlled intersections, delay presented in Intersection average (the delay and LOS of the worst approach is provided in parenthesis).

<sup>3.</sup> LOS = Level of Service.

Source: Fehr & Peers, March 2015.





- |  |   |
|--|---|
|  Single Family Residential - 4 DU/AC  |  Retail                                |
|  Single Family Residential - 8 DU/AC  |  Industrial                            |
|  Single Family Residential - 11 DU/AC |  Public & Institutional                |
|  Zone 7 Open Space                    |  Destination Use                       |
|  Private Open Space                   |  Trail                                 |
|  City Parks                           |  Potential Public School/<br>Park Site |
|  Campus Office                        |  Staging Area                          |
|  Retail Overlay                       |  Internal Intersection                 |

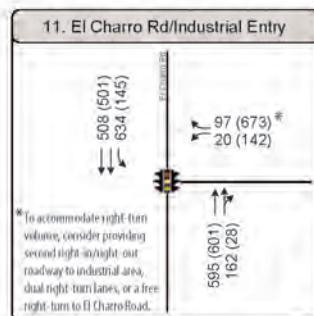
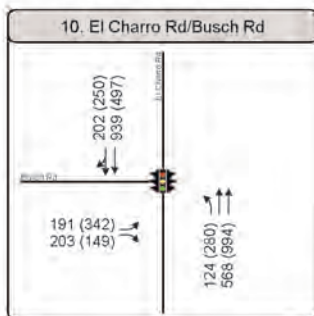
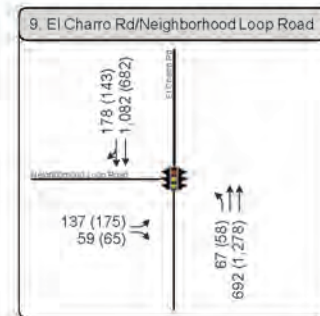
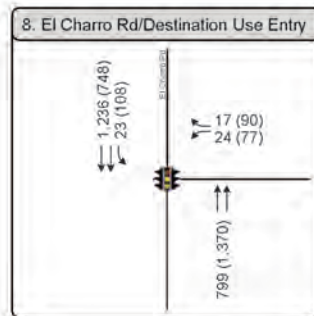
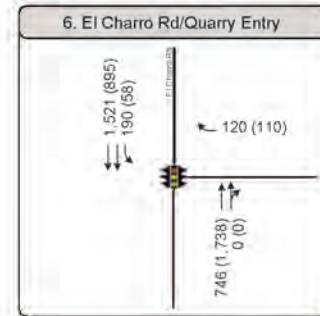
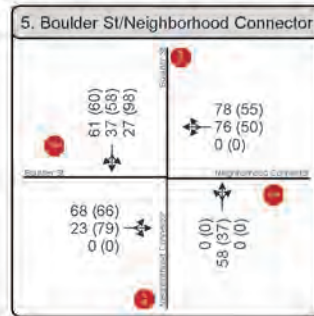
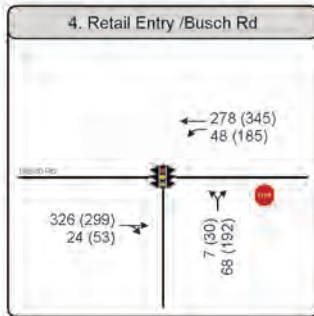
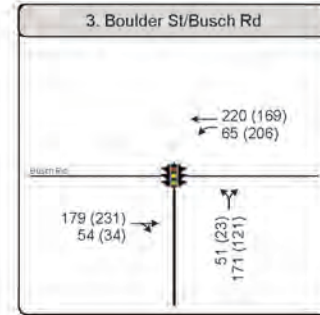
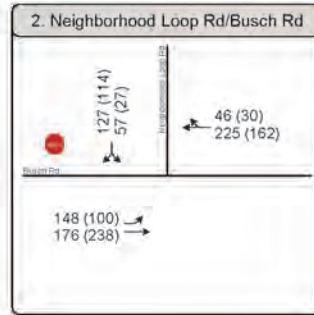
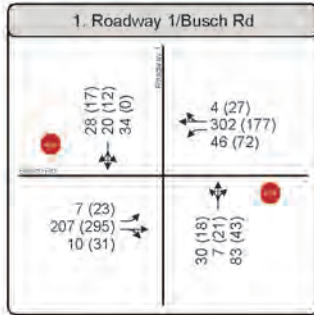
NOTE : Trails are conceptual only. Those on Zone 7 property will be subject to Zone 7 review and approval.

Source: Fehr & Peers, 2015



## Exhibit 3.14-10 Internal Intersection Locations

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Source: Fehr & Peers, 2015

Exhibit 3.14-11



Internal Intersection Cumulative Peak Hour Traffic Volumes, Recommended Lane Configurations, and Traffic Control

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As shown in Table 3.14-11, all intersections along Busch Road and Boulder Street are projected to operate at acceptable service levels with a variety of traffic control devices. The Traffic Impact Analysis includes the following recommendation for onsite intersections:

- Traffic signals should be installed at the Busch Road/Boulder Street intersection to provide a protected pedestrian crossing of Busch Road.
- Traffic signals should be installed at all full access intersections along El Charro Road.

The Specific Plan has incorporated these recommendations to ensure acceptable intersection operations within the Plan Area.

In addition, the Traffic Impact Analysis makes the following recommendations:

- At the El Charro Road and Industrial Access intersection, a high westbound right-turn volume is projected for the evening peak hour. To minimize the cross-section of the Industrial Roadway, it is recommended that a right-in/right-out roadway connection be constructed at El Charro Road to provide two access points to the industrial area. If providing two access points is not feasible, either dual right-turn lanes, or a free right-turn lane with associated receiving lane on El Charro Road would need to be provided.
- Operations of the Retail Entry on Busch Road were evaluated assuming general retail uses are constructed at the site. Given its potential proximity to the El Charro Road at Busch Road intersection, if the retail driveway is signalized, the signal operations should be interconnected and coordinated with the El Charro Road at Busch Road intersection. A supplemental queuing assessment may need to be conducted when development is proposed for the retail parcel to determine the needed vehicle queue storage for the northbound left-turn movement from El Charro Road to Busch Road and the westbound left-turn movement from Busch Road to the retail site.

Finally, it is noted that with modifications to El Charro Road to provide access to the Plan Area, considerations were made to maintain access to the quarry area. As discussed in Appendix H, there would be a southbound entrance and northbound exit approximately 600 feet south of the Stoneridge Drive/Jack London Boulevard at El Charro Road intersection. This design would restrict the ability of vehicles from the quarry, especially large trucks, from traveling on El Charro Road, south of the quarry entrance. Vehicle travel to/from the quarry was considered in the assessment of intersection operations.

Mitigation measures have been added to reflect these recommendations. Impacts would be less than significant.

#### ***Level of Significance Before Mitigation***

Potentially significant impact.

### **Mitigation Measures**

**MM TRANS-5a** To minimize the cross-section of the Industrial Roadway, a second right-in/right-out roadway shall be constructed to provide two access points to the industrial area from El Charro Road. If providing two access points is not feasible, either dual right-turn lanes or a free right-turn lane with associated receiving lane on El Charro Road shall be provided. Configuration of these improvements shall be determined prior the approval of the first development in the Industrial land use portion of the Plan Area.

**MM TRANS-5b** To ensure adequate vehicle turn movement capacity is provided from El Charro Road to Busch Road, and from Busch Road to the Retail land use designated area, all proposed development within the vicinity of Busch Road and El Charro Road shall prepare a queuing analysis prior to PUD approval. The queuing analysis shall determine the needed vehicle turn movement capacity for the proposed land use. If the proposed land use exceeds the planned vehicle turn movement capacity from El Charro Road to Busch Road, or from Busch Road to the Retail land use designated area, the applicant will fund and implement the vehicle turn movement capacity increases prior to issuance of building occupancy permits.

### **Level of Significance After Mitigation**

Less than significant impact.

### **Air Traffic Patterns**

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**Impact TRANS-6: Development and land use activities contemplated by the Specific Plan would not cause a change in air traffic patterns that results in substantial safety risks.**

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### **Impact Analysis**

This impact evaluates the Specific Plan’s potential to alter air traffic patterns in a manner that results in a substantial safety risk.

The entire Plan Area is located within the Airport Influence Area (AIA) of the Livermore Municipal Airport, specified by the Livermore Municipal Airport Master Plan. The AIA is the area within which the ALUC is authorized to review local land use actions. The AIA also coincides with the Height Referral Area, which delineates the airspace of concern to the ALUC, due to possible hazards to air navigation caused by tall structures. The ALUCP further provides Safety Zones that specify permissible, conditional, and prohibited land uses within the APA. The Specific Plan area falls within Safety Zones 4, 6, and 7, with construction occurring in each of those zones. As indicated in Section 3.9, the Specific Plan’s land uses are consistent with the development restrictions of the AIA, APA, and Safety Zones 4, 6, and 7. Furthermore, to ensure consistency with the ALUCP, the Specific Plan requires the following:

- Prior to City approval of PUD development plans for projects within the EPSP boundaries, plans shall be submitted to the Alameda County Airport Land Use Commission for review to ensure consistency with the Livermore Municipal Airport’s Land Use Compatibility Plan.

The ALUCP also discourages land uses and landscaping that attract wildlife (such as birds and deer) and hazards to flight such as uses that create glare or plumes. The existing lakes within the Plan Area attract wildlife, especially waterfowl, which may conflict with airport operation. Under the Specific Plan, the existing lakes would be maintained, so that any existing considerations with respect to wildlife would continue. However, the Base Plan, including related landscaping and recreational improvements, would not be expected to contribute to or exacerbate this condition.

Because the Specific Plan land uses are consistent with land use restrictions related to the existing Livermore Municipal Airport operations, and because it would not include any new land uses that would create hazards to flights, no alterations to air traffic patterns would occur. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Roadway Safety**

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**Impact TRANS-7: Development and land use activities contemplated by the Specific Plan would not result in hazardous roadway designs features or incompatible uses.**

---

**Impact Analysis**

The Specific Plan and surrounding area’s roadway network reflects the street classification system established in the Pleasanton General Plan. New roadways developed within the Plan Area would be required to adhere to roadway sections set forth in the General Plan, City of Pleasanton Municipal Code, and Specific Plan, which establish requirements for lane geometry, width, bicycle facilities, and pedestrian facilities. As such, new roadways would be consistent with City standards and industry standards and would not result in hazardous roadway designs.

Large trucks currently access the quarry lands east of the Plan Area via El Charro Road, creating potential increased roadway hazards. As indicated by the Specific Plan, a southbound entrance and northbound exit, approximately 600 feet south of the Stoneridge Drive/West Jack London Boulevard at El Charro Road intersection would ensure quarry access is maintained while restricting quarry traffic from traveling on El Charro Road south of the quarry entrance. In addition, trucks over 3 tons would be prohibited from using Busch Road and Boulder Street. These design features would reduce potential roadway conflicts related to heavy truck traffic.

As indicated in the Specific Plan, the extension of El Charro Road to Stanley Boulevard would include the construction of a railroad underpass, similar to the existing underpass at Stanley Boulevard and Valley Avenue. The grade on Stanley Boulevard would be lowered by approximately 16 feet to accommodate the new railroad track undercrossing, and the existing spur track line would be

removed. Implementation of this underpass would avoid the roadway hazards associated with an at-grade crossing.

In summary, hazardous roadway design features or incompatible uses would not occur and impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Emergency Access/Response**

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**Impact TRANS-8: Development and land use activities contemplated by the Specific plan would not adversely affect response time for emergency service providers.**

---

**Impact Analysis**

The Plan Area boundaries are within 1 mile of two fully staffed fire stations. Station Number 1 is located south of the Plan Area on Nevada Street and Station Number 3 is located west of the Plan Area on Santa Rita Road. As illustrated on General Plan Figure 5-6, the majority of the Plan Area is located in a Special Fire Protection Area, where travel time from the nearest Fire Department is generally over 5 minutes. Areas within a Special Fire Protection area are required to provide additional fire protection measures, including, at minimum, automatic fire sprinklers. However, with the future improvements and expansion of the roadway network within the Plan Area, access would be increased and response times would be minimized. Potential removal of the Plan Area from the Special Fire Protection Area would need to be determined once access is increased. Until then, additional fire protection measures would still be required.

The Plan Area is within 2 miles of Police Department headquarters on Bernal Avenue. Correspondence from the Police Department indicates that emergency response services for the Plan Area could be adequately provided from existing stations.

As indicated by the Traffic Impact Analysis, it is recommend that, to ensure emergency vehicles have an unobstructed access throughout the site, parking should be restricted within the first 50 feet of the neighborhood entrances, and if landscaped medians or other entry treatments are proposed, a 20-foot clear area should be provided. In addition, at least two entrances should be provided to each neighborhood or activity center such that if one access was blocked, alternate access would be provided. During the PUD applicant review process, review of site plans by the Fire Department is required and ensures sufficient access and site distances are provided.

The growth in land uses allowed under the Specific Plan would increase traffic and associated delays at intersections that may affect the response time for emergency service providers outside of the



Plan Area. Maintenance of the City's level of service standards on roadways would ensure that emergency service response time remains at an adequate level. Based on the analysis of land use development resulting from the implementation of the Specific Plan and with the implementation of mitigation, intersections and freeway segments are projected to operate at acceptable levels of services. Therefore, future development and land use activities contemplated by the Specific Plan would not result in inadequate emergency access or response. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Bicycle, Pedestrian and Public Transit**

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**Impact TRANS-9: Development and land use activities contemplated by the Specific plan would not conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks).**

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**Impact Analysis**

This impact evaluates the Specific Plan's potential to conflict with adopted policies, plans, or programs supporting alternative transportation, including those associated with public transit, bicycles, and pedestrians.

*Public Transit*

Transit service is not currently provided in the interior of the Plan Area. Guidance is provided within the Specific Plan document regarding the placement and design of transit stops within the development. The Specific Plan requires the implementation of public transit stops and shelters and indicates that future project developers should consult with LAVTA and City of Pleasanton staff regarding the final placement and design of transit stops within the Plan Area to allow for provision of future service.

As indicated by the Traffic Impact Analysis, over 1,000 trips on a daily basis to and from the Plan Area are expected to occur via public transit, with the potential for approximately 200 transit trips during both the morning and evening peak hours. These transit rider estimates include employees of new businesses within the site using transit for their commute trip, as well as future residents using transit.

In addition to transit trips directly to and from the site, which may include people using transit to access the East Pleasanton BART station or an ACE station, residents of the site are also expected to drive to a BART or ACE station. As the BART parking areas reach capacity before the morning commute is over, it is expected that additional vehicle parking demand would exacerbate this

existing deficient condition. BART plans to extend BART service into Livermore. With the extension of BART service, many existing BART passengers that drive from points east of the existing terminal station, such as Livermore and Tracy, would have the option of boarding the BART system further east, freeing up parking capacity at the existing East Pleasanton BART station. Nonetheless, the Base Plan's contribution to the BART parking deficit is expected to be significant and unavoidable in the short-term (next 10 years), but potentially less than significant in the long-term (10 to 20+ years).

Based on boarding/alighting information provided by BART, the East Pleasanton BART station has capacity to accommodate additional ridership that could be generated by development within the EPSP area. Trains with between 5 to 10 cars typically serve the BART Pleasanton station, with four trains during peak hours. In the morning peak hour, approximately 30 transit trips are expected to be generated by the project, with an additional 50 transit trips in the evening peak hour. Spread out over the peak hour, the additional ridership generated by development within the Plan Area would likely increase the number of passengers per car during peak periods by zero to two people, which would be imperceptible to existing riders of the BART system. This impact would be less than significant.

The ACE train service utilizes the railway directly south of the Plan Area parallel with Stanley Boulevard. The potential to add a stop or relocate an existing stop to the Plan Area was discussed with ACE train representatives; however, they do not support the addition or relocation of a stop. Such modifications would increase delay for all travelers of the ACE system. Implementation of the Specific Plan would not affect existing ACE train operations.

#### *Pedestrian and Bicycle Facilities*

The Specific Plan requires the implementation of standards contained in the City's Pedestrian and Bicycle Master Plan for the design of all pedestrian and bicycle facilities. Design guidelines included in the Specific Plan provide guidance to future developers and require the provision of pedestrian and bicycle facilities. Sidewalks are to be constructed along all new public roadways within the Plan Area. The potential need for sidewalks along private roads would be determined on a project-by-project bases depending upon the specific needs of the neighborhood. Bicycle lanes would be provided on both Busch Road and Boulder Street. They would also be provided along the southern portion of El Charro Road, with a mixed use trail proposed on the west side of the entire length of El Charro Road. The system of trails proposed throughout the Plan Area is shown on Exhibit 3.14-12.

The proposed trails would form a continuous network around Lake I and throughout the Plan Area. The Iron Horse Trail would be extended from its current terminus at Busch Road through the Plan Area along Busch Road, and then connect to the future multi-use trail that parallels El Charro Road, and end at Shadow Cliffs Regional Park. As recommended by the Traffic Impact Analysis, enhanced trail crossing treatments would be provided at locations where trails cross roadways, including Busch Road, Boulder Street, and El Charro Road. These characteristics would promote efficient and safe pedestrian and bicycle circulation throughout the Plan Area.



Source: East Pleasanton Specific Plan.



## Exhibit 3.14-12 Trails Plan

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*Summary*

The Specific Plan would not interfere with existing or planned pedestrian or bicycle facilities; or conflict with policies or plans supporting the use of alternative transportation. However, development in the Plan Area occurring before the addition of parking capacity at the existing East Pleasanton BART station or the construction of a Livermore BART station would result in short-term (next 10 years) significant unavoidable transit parking impacts for which no feasible mitigation is available.

***Level of Significance Before Mitigation***

Potentially significant impact.

***Mitigation Measures***

No mitigation is feasible.

***Level of Significance After Mitigation***

Significant unavoidable impact.

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## 3.15 - Utilities and Service Systems

### 3.15.1 - Introduction

This section describes the existing utility and services systems setting and potential effects from the implementation of the Specific Plan within the Plan Area and its surroundings. Descriptions and analysis in this section are based on information contained in the City of Pleasanton General Plan (General Plan), General Plan EIR, East Pleasanton Specific Plan Background Report, the City of Pleasanton 2010 Urban Water Management Plan, and the Water Supply Assessment for the East Pleasanton Specific Plan.

### 3.15.2 - Environmental Setting

#### Potable Water

As a water retailer, the City of Pleasanton provides potable water service to businesses and homes within the City as well as adjacent, unincorporated areas including Kilkare Woods, Remen tract, portions of unincorporated Foothill Road, and other isolated service areas (City of Pleasanton 2009). The water distribution system consists of 306 miles of pipelines and approximately 22,000 water service connections. There are 14 pump stations, 22 water storage reservoirs, and one hydro-pneumatic tank in the distribution system (City of Pleasanton 2011). The City receives the majority of its water from the Zone 7 Water Agency. In addition, the City owns and operates three active groundwater wells. In a typical year, Zone 7 provides Pleasanton with approximately 75 to 80 percent of its water. The remainder is pumped through City-owned wells in accordance with a pumping schedule approved by Zone 7 (City of Pleasanton 2009).

As indicated by the General Plan Housing Element Background, water supply is an issue at the forefront of long-term planning efforts in the City. Continued drought conditions will require the City to adopt new methods to stretch its limited supply of water. In May of 2014, the City declared a Local Drought Emergency and instituted a Stage 3 drought declaration intended to reduce water consumption by 25 percent. The City has also approved amendments to Chapter 9.30, Water Conservation Plan, of the Municipal Code, outlining further water reduction measures, including restrictions on outdoor irrigation and decorative water features. In addition, the City is moving forward with its recycled water program, which will reduce the demand for potable water within Zone 7 and assist in creating a more reliable water supply. The City also possesses the flexibility to institute more stringent measures to reduce water demand in the event of a prolonged drought. The City has authorized expenditure of already appropriated and earmarked funds to enable the complete recycled water system to be installed by summer of 2015. These measures will assist in ensuring the City's water supply will meet planned future demand.

#### **Zone 7 Water Agency**

##### *Service Area*

Zone 7 of the Alameda County Flood Control and Water Conservation District (Zone 7 Water Agency or Zone 7) distributes its water supplies to cities, water retailers, and unincorporated areas within the Tri-Valley area. Zone 7 serves the cities of Pleasanton, Dublin, Livermore, and southern portions of San Ramon through four retail water suppliers: the City of Pleasanton, the Dublin-San Ramon

Services District, the City of Livermore, and the California Water Service Company of Livermore. Zone 7 and its water retailers serve a population of more than 200,000 (Zone 7 Water Agency 2012).

#### *Water Supply*

Zone 7 has three sources of water, including State Water Project water from the South Bay Aqueduct, surface runoff collected in the Del Valle Reservoir, and local groundwater. In addition to water stored in the local groundwater basin, Zone 7 has acquired additional out-of-basin groundwater storage to help supply its service area during droughts. Water delivered to Pleasanton is primarily from the State Water Project (City of Pleasanton 2009). Zone 7 has stated that current water supplies cannot support increases in system demands beyond the year 2015. As such, Zone 7 actively pursues projects to protect and increase its water supplies (Zone 7 Water Agency 2010).

#### *Distribution System*

The State pumps State Water Project water from the Sacramento-San Joaquin Delta via the California Aqueduct and conveys it to the Valley via the South Bay Aqueduct. Zone 7 treats this imported water at its Patterson Pass and Del Valle Water Treatment Plants in Livermore, and then sends it to Pleasanton via the Zone 7 Cross Valley and Vineyard Pipelines.

Zone 7 also stores water from the State Water Project and from local runoff in the Del Valle Reservoir, and uses this water to replenish groundwater supplies through release into the Arroyo del Valle and Arroyo Mocho. Zone 7 also uses this water as a secondary local supply to its two water treatment plants (City of Pleasanton 2009). Water from Zone 7 enters the City of Pleasanton's water system at seven different turnout locations (City of Pleasanton 2011).

#### ***City of Pleasanton Groundwater Wells***

Pleasanton's annual groundwater entitlement is 3,500 acre-feet. Groundwater is pumped from the City of Pleasanton groundwater wells generally during the summer months to meet peak-usage periods. Groundwater is disinfected (using chloramines – a combination of chlorine and ammonia) prior to being pumped into the City's water system.

#### ***Urban Water Management Plan Projections***

The City of Pleasanton 2010 Urban Water Management Plan (UWMP) provides a comparison of demand and supply under various scenarios through the year 2030. Table 3.15-1 summarizes the water supply projections contained in the City of Pleasanton 2010 UWMP. Zone 7 maintains a 100-percent reliability policy for existing development for the next 20 years through average, single dry, and multiple dry years; therefore, the demand is equivalent to the supply provided (City of Pleasanton 2011).



**Table 3.15-1: City of Pleasanton Demand and Supply Projections (2015–2040)**

Scenario	Category	Year (acre-feet)			
		2015	2020	2025	2030
Demand	Planning Level of Demand	16,682	16,513	17,212	17,977
Normal Water Year	Available Supply	16,682	16,513	17,212	17,977
Single Dry Year	Available Supply	16,682	16,513	17,212	17,977
	Supplemental Supply Needed	0	0	0	0
Multiple Dry Years	Available Supply	16,682	16,513	17,212	17,977
	Supplemental Supply Needed	0	0	0	0

Source: City of Pleasanton, 2011.

Consistent with Zone 7, the 2010 Urban Water Management Plan (UWMP) states that current water supplies cannot support increases in system demands beyond the year 2015. As such, the UWMP contemplates potable water service to new and redevelopment areas with the implementation of conservation programs and use of recycled water to meet some of the existing potable water irrigation demands (City of Pleasanton 2011). The City’s 2010 UWMP assumes that little to no growth in potable water demand will occur over the next 20 years. Instead, demands resulting from growth within the City will be met through water conservation efforts, as well as the expansion of recycled water use to irrigation areas within the City that are currently using potable water.

**Recycled Water**

**Recycled Water Sources**

The City has two sources of recycled water: the Dublin San Ramon Services District (DSRSD) and the City of Livermore. The DSRSD’s Recycled Water Treatment Facility (RWTF) currently treats the City’s wastewater flows, and would provide the majority of the City’s recycled water after planned upgrades to the RWTF and installation of recycled water delivery infrastructure. The recently completed Phase 1 tertiary treatment expansion added a total of 2 million gallons per day (mgd) of recycled water supply, and the planned second phase will result in another 2 mgd of recycled water for a total of 4 mgd (WJM C&E 2014). The City is currently implementing the second phase and by summer 2015, the recycled water system will be complete; as a result, adequate potable water supply for the Plan Area will be available. The City of Pleasanton has established formal agreements with the DSRSD and the DSRSD-East Bay Municipal Utility District Recycled Water Authority (DERWA) for the treatment and delivery of recycled water to the City (City of Pleasanton 2013).

The second source of recycled water is the City of Livermore. Pleasanton and Livermore have an agreement for Livermore to provide recycled water supplies to help meet the recycled water demands on the east side of the City of Pleasanton. These recycled water deliveries will cease when the City of Pleasanton expands its recycled water distribution system out to the east side of the City and meets the demands that Livermore has been serving (WJM C&E 2014).

**Recycled Water Supplies**

At this time, the City of Pleasanton does not have a recycled water distribution system. However, Pleasanton’s City Council unanimously approved a recycled water feasibility study in November 2013, which permits the City to apply for grants and loans to implement the recycled water program identified in the study. Consistent with the City’s 2010 UWMP, the feasibility study identified more than 4,000 acre-feet per year of irrigation demand. Of these 4,000 acre-feet, almost 2,400 acre-feet per year of irrigation could potentially be served by recycled water.

The recycled water feasibility study recommended the recycled water program be divided into different phases, based upon the water supply source. The East Side Phase consists of developing Staples Ranch, which currently serves the landscape medians along El Charro Road and Stoneridge Drive, the Stoneridge Creek Neighborhood Park, and will soon serve the Continuing Life Community within Staples Ranch. The next phase, described as Phase 1A in the RWFS, forms the backbone of the recycled water distribution system from the west end of Pleasanton, connecting the DSRSD RWTF to major sections of Hacienda Business Park as the pipeline makes its way to the City’s existing 8-million-gallon Tassajara Reservoir for storage capability. This phase also travels southward on Hopyard Road, incorporating the Valley Trails, Sports, and Tennis Parks. The projected potable water demand this system is projected to serve is 1,504 acre-feet annually (City of Pleasanton 2013). Table 3.15-2 provides a summary of Pleasanton’s potential future recycled water use.

**Table 3.15-2: City of Pleasanton Potential Future Recycled Water Use (2015–2030)**

Phase	Description	Year (acre-feet)			
		2015	2020	2025	2030
1	Staples Ranch (Approved)	140	140	140	140
2	Hacienda Business Park	—	182	182	182
3	Sports and Tennis Community Parks	—	125	125	125
Totals		140	447	447	447

Source: City of Pleasanton, 2011.

**Wastewater**

Three agencies handle the collection, treatment, and disposal of wastewater within the City. The City of Pleasanton provides its own sewage collection facilities within in the city limits. The DSRSD provides sewage treatment services under contract with the City. The Livermore-Amador Valley Water Management Agency (LAVWMA), a joint powers agency between Pleasanton, Livermore, and DSRSD, provides export/treated sewage disposal services for treated sewage effluent.

**City of Pleasanton Collection System**

The City of Pleasanton owns, operates, and maintains a wastewater collection system within the City’s boundaries. Total pipeline length within the service area exceeds 250 miles and consists of local and trunk sewer pipes, ranging in size from 4 to 42 inches in diameter. In addition to numerous

sewer mains and collectors, four major trunk sewers are tributary to the wastewater treatment plant and the twelve pump stations in the system. Pleasanton's sewer flows include sewage from the Castlewood area, but do not include sewage from the Ruby Hill area. Under contract with the City of Pleasanton, the City of Livermore treats Ruby Hill wastewater flows (City of Pleasanton 2009).

Based on preliminary results of the Wastewater Collection System Master Plan, the City's sewage collection system is adequate for current flows. The major trunk lines included in the City's past Wastewater Collection System Master Plan are in place and are sized appropriately to accommodate existing flows. However, the City has identified the need for some improvements to the existing collection and pumping system. These improvements include construction of new or parallel sewers; diversion structures; and modifications, improvements, or complete reconstruction of various pump stations. Wastewater services are not currently provided to the majority of Plan Area, with the exception of the City of Pleasanton's Operations Service Center.

### ***DSRSD Wastewater Treatment***

The Dublin-San Ramon Services District (DSRSD) provides wastewater treatment services to the City of Pleasanton under a number of wastewater treatment and disposal contracts between the two agencies. The DSRSD RWTF is located immediately southeast of the I-680/Stoneridge Drive interchange. It provides primary, secondary, and tertiary wastewater treatment (City of Pleasanton 2009).

The RWTF recently completed an expansion project to bring the average dry-weather wastewater-flow design capacity from 11.5 mgd of wastewater treatment capacity to 17 mgd. The City of Pleasanton is currently entitled to half of this treatment capacity, or 8.5 mgd. The City's average annual wastewater flow is approximately 6.0 mgd, leaving an additional 2.5 mgd of capacity, which is sufficient to serve Pleasanton's planned buildout growth as anticipated in the General Plan, including the Plan Area (City of Pleasanton 2009).

### ***Livermore-Amador Valley Wastewater Management Agency Wastewater Disposal***

Treated water from the DSRSD RWTF is exported by the LAVWMA. The facilities consist of storage/flow equalization reservoirs, a large pumping station, and a pipeline to convey the treated wastewater across the Dublin Grade along Interstate 580 to the west where it is de-chlorinated by the East Bay Discharge Authority facility before flowing to the San Francisco Bay (City of Pleasanton 2009).

LAVWMA receives treated water from the City of Livermore and the DSRSD. The combined average dry weather flow rate from these two facilities is limited by a joint powers agreement to a maximum flow rate of 31.8 mgd. LAVWMA facilities are designed to export a maximum flow of 41.2 mgd during wet weather events (LAVWMA 2013). The LAVWMA export system is believed to be adequate to serve Pleasanton's planned General Plan buildout, including development of the Plan Area (City of Pleasanton 2012).

**Storm Drainage**

The City of Pleasanton owns and maintains drainage facilities within the City limits consisting of underground pipes, local channels, and natural swales in hillside areas. These facilities carry water runoff within the drainage basin to the flood-control channels (known locally as arroyos).

Existing stormwater drainage in the Plan Area consists primarily of sheet flows and drainage into the existing Zone 7 lakes. To accommodate future buildout of the Plan Area, the City requires that new developments install appropriately sized storm drains and detention systems.

**Solid Waste**

Solid waste collection and disposal services in Pleasanton are provided by the Pleasanton Garbage Service (PGS). PGS provides solid waste collection services under an exclusive franchise agreement with the City of Pleasanton. These services include collection of solid waste from commercial, industrial, and residential customers within the City. Collected solid waste is sorted at the Pleasanton Transfer Station and Recycling Center, which is also operated by PGS. The Pleasanton Transfer Station and Recycling Center has a design capacity of 720 tons per day (CalRecycle 2013).

**Landfill Capacity**

PGS transports solid waste to the Vasco Road Sanitary Landfill in Livermore. According to the Alameda County Integrated Waste Management Plan, and assuming achievement of countywide waste reduction goals, the Vasco Road Landfill will have capacity through 2037.

**Table 3.15-3: Landfill Summary**

Landfill	Location	Maximum Daily Throughput	Remaining Capacity	Closure Date
Vasco Road Sanitary Landfill	Livermore	2,250 tons	9.8 million cubic yards	2037
Source: City of Pleasanton 2012, CalRecycle 2013.				

**Energy**

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City of Pleasanton and the Plan Area. Below is a discussion of each energy source.

**Electricity**

PG&E provides electricity service to all or part of 47 counties in California, including Alameda County, constituting most of the northern and central portions of the State. As of December 31, 2010, PG&E provided electricity to approximately 5.2 million customers. In 2010, PG&E obtained 43 percent of electricity from its own generation sources and the remaining 57 percent from outside sources. PG&E-owned generating facilities include nuclear, fossil fuel, hydroelectric, and solar with a net generating capacity of more than 7,300 megawatts. Outside suppliers to PG&E include the California Department of Water Resources, irrigation districts, renewable energy suppliers, and other fossil fuel-fired suppliers. PG&E operates approximately 160,000 circuit miles of transmission and

distribution lines. PG&E is interconnected with electric power systems in the western Electricity Coordinating Council, which includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico.

In 2010, PG&E delivered 83,908 gigawatt-hours of electricity to its customers.

PG&E implemented a transmission capacity increase project in the Tri-Valley area in 2002. In Pleasanton, this project included the installation of a new, underground, 230-KV high-voltage line near Vineyard Avenue and upgraded the existing Vineyard Substation to accommodate the increased electrical capacity. In light of these capacity increase improvements, it is expected that the provision of electricity to future Plan Area development can be reasonably achieved (City of Pleasanton 2012).

### **Natural Gas**

PG&E provides natural gas service to all or part of 39 counties in California, including Alameda County, constituting most of the northern and central portions of the State. As of December 31, 2010, PG&E provided electricity to approximately 4.3 million customers. PG&E obtains more than 59 percent of its natural gas supplies from western Canada and the balance from U.S. sources. PG&E operates approximately 49,000 miles of transmission and distribution pipelines.

Natural gas transmission pipelines in the immediate vicinity of the Plan Area are located within the Stanley Boulevard right of way along the southern border of the Specific Plan Area, extending northward from Stanley Boulevard to Busch Road at the Pleasanton Transfer Station and Recycling Center property. It is expected that the provision of future natural gas to Plan Area development can be reasonably achieved (City of Pleasanton 2012).

## **3.15.3 - Regulatory Framework**

### **State**

#### **California Green Building Standards Code**

The California Green Building Standards Code was adopted January 12, 2009. Updates to the Code for 2013 went into effect on January 1, 2014. The purpose of this code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental air quality

The Code addresses exterior envelope (exterior building walls), water efficiency, and material conservation components. The aim is to reduce energy usage in non-residential buildings by 20 percent by 2015 and help meet reductions contemplated in AB 32.

**California Urban Water Management Planning Act**

The Urban Water Management Planning Act (California Water Code Sections 10610-10656) requires that all urban water suppliers with at least 3,000 customers prepare urban water management plans and update them every five years. The act requires that urban water management plans include a description of water management tools and options used by that entity to maximize resources and minimize the need to import water from other regions.

The City of Pleasanton's Urban Water Management Plan was last updated in 2010 and includes projections of water demand and supply through 2030.

**Model Water Efficient Landscape Ordinance**

The Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009 and requires local agencies to implement water efficiency measures as part of their review of landscaping plans. Local agencies can either adopt the Model Water Efficient Landscape Ordinance or incorporate provisions of the ordinance into code requirements for landscaping. For new landscaping projects of 2,500 square feet or more that require a discretionary or ministerial approval, the applicant is required to submit a detailed "Landscape Documentation Package" that discusses water efficiency, soil management, and landscape design elements.

**California Integrated Waste Management Act**

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent by 1995 and 50 percent by 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, Senate Bill (SB) 1016, Wiggins, Chapter 343, Statutes of 2008, introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities.

**California Public Utilities Commission**

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to (1) assure California utility customers safe, reliable utility service at reasonable rates; (2) protect utility customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

**Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings**

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were most recently updated in 2013, which went into effect on July 1, 2014. According to the California Energy Commission, the

2013 Standards will use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the previous 2008 Standards. (Specifically, it is estimated that the 2013 Standards may reduce statewide annual electricity consumption by approximately 613 gigawatt-hours per year, electrical peak demand by 195 megawatts, and natural gas consumption by 10 million therms per year.) Additionally, the Standards will save 200 million gallons of water per year (equal to more than 6.5 million washloads) and avoid 170,500 tons of greenhouse gas emissions per year. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), indoor and outdoor lighting, and illuminated signs.

## Local

### **City of Pleasanton**

#### *General Plan*

The Pleasanton General Plan sets forth the following goals, policies, and programs related to utilities and service systems.

#### *Public Facilities and Community Programs Element*

- **Goal 10:** Strive to meet or exceed State and County standards for source reduction and waste diversion, including the countywide goal of 75 percent reduction of waste going to landfills by 2010.
- **Policy 26:** Minimize the City's generation of solid waste materials by supporting the Alameda County Integrated Waste Management Plan and Source Reduction and Recycling Plan and by developing City recycling programs using the California Diversion rate methodology for measurement.
  - **Program 26.1:** Continue to promote the recycling of materials at the solid waste transfer station and other locations.
  - **Program 26.2:** Recycle paper, glass, metal, and other marketable materials through the City's centralized recycling program.
  - **Program 26.4:** Promote incentives for using recycled materials in construction or manufacturing.
  - **Program 26.6:** Promote and provide incentives for using recycled materials in the home or business.
  - **Program 26.8:** Promote and provide incentives for the reduction of curbside waste.
  - **Program 26.9:** Utilize waste management reclamation methods to the fullest extent feasible.
  - **Program 26.10:** Continue to support the green waste composting program.
  - **Program 26.11:** Continue to support the food-scrap composting program, if it is cost effective.
  - **Program 26.18:** Residential projects with more than three units and all non-residential projects in the city shall prepare and implement a Project Waste Diversion Plan that includes a discussion of the project's diversion strategies. The plan shall include a description of onsite disposal, composting and recycling facilities, a construction debris disposal and recycling plan, and a discussion of any pre-waste stream conservation

measures appropriate to the project. The City shall review and approve waste diversion plans as part of the land entitlement process for projects.

#### Water Element

- **Goal 1:** Preserve and protect water resources and supply for long-term sustainability.
  - **Policy 1:** To ensure sustainability, promote the conservation of water resources.
    - **Program 1.1:** Prohibit water supply production policies and practices which would deplete groundwater resources below existing sustainable levels.
    - **Program 1.2:** Foster water conservation practices which do not allow depletion of groundwater and surface water resources to the extent that they cannot be replaced within the same water season.
    - **Program 1.3:** Support Zone 7 Water Agency in water supply production, treatment, and procurement practices that do not negatively impact the environment.
    - **Program 1.4:** Work with Zone 7 Water Agency to investigate innovative and more efficient ways to recharge aquifers and other groundwater resources.
    - **Program 1.5:** Utilize cost-effective water reclamation and recycling techniques for the purpose of water conservation rather than as a new source of water which must be used to sustain new and existing development, where these techniques can be implemented without degrading surface water and groundwater quality.
    - **Program 1.6:** Investigate the feasibility of using stormwater runoff, if all water quality measures are in place, for irrigation and groundwater recharge.
    - **Program 1.7:** Require the installation of water conservation devices in new construction and additions.
    - **Program 1.13:** Plant drought-tolerant landscaping in appropriate locations. All landscaping aspects from plant selection to irrigation methods should be designed to reduce water demand, decrease runoff, and minimize impervious surfaces.
- **Goal 2:** Provide healthy water courses, riparian functions, and wetlands for humans, wildlife, and plants.
- **Goal 3:** Ensure a high level of water quality and quantity at a reasonable cost, and improve water quality through production and conservation practices which do not negatively impact the environment.
  - **Policy 3:** Protect the quality and quantity of surface water and groundwater resources in the Planning Area.
    - **Program 3.1:** Do not utilize water reclamation techniques, including reverse osmosis, which could adversely affect or have potentially negative impacts on drinking water quality, surface waters, or groundwater resources.
    - **Program 3.2:** Work with Zone 7 to monitor water-quality levels and test for pollution, including diazinon, of arroyos and aquifers to ensure that Pleasanton's drinking water is not contaminated with pollutants.
    - **Program 3.4:** To preserve areas with prime percolation capabilities, regulate projects that use toxic chemicals including herbicides in water recharge areas, such as adjacent to arroyos.
    - **Program 3.5:** Coordinate with Zone 7 to control pollutant discharges and increase public education regarding the use of pesticides, such as diazinon, and the use of herbicides.



- **Program 3.6:** Prohibit new septic systems, automobile dismantlers, waste disposal facilities, industries utilizing toxic chemicals, and other potentially polluting uses in areas where pollution could impact flood waters, groundwater, streams, creeks, or reservoirs.
- **Program 3.7:** To the extent compatible with the goal of maintaining water quality and public safety, retain water recharge areas, if feasible, as permanent open space accessible to the public.
- **Program 3.8:** Coordinate with the Dublin-San Ramon Services District to investigate cost-effective sewage treatment and disposal methods that utilize reclaimed wastewater for productive use and that protect the quality of the groundwater supply.
- **Program 3.9:** Support the policies and programs contained in the Water Quality Control Plan for the San Francisco Bay Basin to the extent they are consistent with the City's policies for water quality.
- **Program 3.11:** Support Zone 7 in implementing its Stream Management Master Plan so as to protect and enhance the water quality of streams and groundwater.
- **Goal 4:** Provide sufficient water supply and promote water safety and security.
  - **Policy 4:** Ensure an adequate water system and a high quality water supply for existing and future development, and maintain an adequate reserve of water in storage facilities.
    - **Program 4.1:** Require new development to pay for its fair share of the City's water system master plan improvements.
    - **Program 4.2:** Develop a contingency plan for potential water shortages including groundwater management and water conservation.
    - **Program 4.3:** Work with Zone 7 to establish and monitor acceptable ranges of underground water levels and recharge when necessary.
    - **Program 4.4:** Maintain sufficient water pressure to serve residential, commercial, industrial, and fire-flow requirements as determined by the City Engineer.
    - **Program 4.5:** Utilize water reclamation methods to the fullest extent feasible, where safe and nonpolluting.
    - **Program 4.9:** In anticipation of planned future growth in Pleasanton, continue working with Zone 7 to plan and provide for sufficient future water supplies.
    - **Program 4.10:** Continue to work with Zone 7 to ensure that use of the groundwater basin by Zone 7 does not result in deterioration of water quality.
    - **Program 4.12:** Work with Zone 7 to secure water facilities against sabotage.
    - **Program 4.13:** Work with Zone 7 to develop water conservation plans and strategies for the long term.
- **Goal 5:** Provide adequate sewage treatment and minimize wastewater export.
  - **Policy 5:** Secure sewage capacity through all available means for residential, commercial, and industrial development.
    - **Program 5.1:** Require new development to pay its fair share of the City's planned sewer system improvements including treatment, distribution, reuse, and export facilities.
  - **Policy 6:** Approve only those sewage collection, treatment, and export expansion alternatives which are cost- and energy-efficient and do not create a health hazard.
    - **Program 6.1:** Utilize wastewater reuse/reclamation methods to the fullest extent financially and environmentally feasible. Identify additional parks, playgrounds, and non-residential landscaping where recycled tertiary treated wastewater could be used without

- negatively impacting groundwater (e.g., with salt buildup). Encourage new parks and non-residential landscaped areas to use recycled wastewater whenever feasible, safe, cost-effective, and nonpolluting. Encourage new and retrofitted commercial uses to utilize recycled wastewater for landscaping and toilets, whenever feasible, safe and nonpolluting.
- **Policy 7:** Support cost-effective and environmentally sensitive approaches to wastewater reuse in the Tri-Valley.
    - o **Program 7.1:** Work with Zone 7 and other water, wastewater, business, and planning agencies to support cost effective and environmentally sensitive approaches to Tri-Valley wastewater reuse.
  - **Goal 6:** Minimize stormwater runoff and provide adequate stormwater facilities to protect property from flooding.
    - **Policy 8:** Ensure an adequate storm drainage system to serve existing and future development.
      - o **Program 8.1:** Require new development to pay its fair share of the storm drainage system improvement costs.
      - o **Program 8.2:** Design local storm drainage improvements to carry appropriate design-year flows resulting from buildout of the General Plan.
      - o **Program 8.3:** Work with Zone 7 to complete planned, regional storm drainage improvements.
      - o **Program 8.4:** As determined by the City Engineer, require new development to improve local storm drainage systems to accept appropriate design-year flows resulting from new development.
      - o **Program 9.3:** Support Zone 7's plan to establish the Chain of Lakes for flood control, water supply, and recreation. Include a public awareness program about the need for the Chain-of-Lakes resource.
  - **Goal 7:** Reduce stormwater runoff and maximize infiltration of naturally-occurring rainwater so as to improve surface and subsurface water quality.
    - **Policy 10:** Encourage a built environment that minimizes impervious surfaces.
      - o **Program 10.1:** Review development plans to minimize impervious surfaces and generally maximize infiltration of rainwater in soils, where appropriate. Maximize permeable areas to allow more percolation of runoff into the ground through such means as biofilters, green strips, planter strips, decomposed granite, porous pavers, swales, and other water-permeable surfaces. Require planter strips between the street and the sidewalk within the community, wherever practical and feasible.
      - o **Program 10.2:** Maximize the runoff directed to permeable areas or to stormwater storage by (1) orienting roof runoff towards permeable surfaces or drains, (2) grading the site to divert flow to permeable areas, (3) using cisterns, retention structures, or green rooftops to store precipitation for reuse, and (4) designing curbs and berms so as to avoid isolating permeable or landscaped areas.
      - o **Program 10.3:** Encourage design and construction of new streets to be the minimum width possible while still meeting all circulation, flow, and safety requirements. Encourage parking pullouts adjacent to landscaping and pervious surfaces, where practical and feasible.

- **Program 10.4:** Consider reducing parking ratios for transit-oriented and mixed-use development.
- **Program 10.5:** Discourage additional parking over and above required minimum parking standards for any land use, unless the developer can demonstrate a need for additional parking.
- **Program 10.6:** Encourage multi-story parking garages when practical to limit the land area covered by parking.
- **Program 10.7:** Create a vegetative buffer between streambeds and development. Developers should retain existing vegetation and, where necessary, plant these buffers with native plant species.
- **Policy 11:** Implement stormwater runoff requirements, as required by the State Regional Water Quality Control Board and the Alameda County-wide Clean Water Program, with as little impact on development and business costs as possible.
  - **Program 11.1:** Incorporate conditions of approval developed by the Alameda County-wide Clean Water Program, as appropriate, for new development and discretionary permits.
  - **Program 11.2:** Develop design guidelines and standard details to enable developers to incorporate clean water runoff requirements into their projects.
  - **Program 11.3:** Using the California Environmental Quality Act (CEQA) process, evaluate the development effects on stormwater runoff.
  - **Program 11.4:** Encourage site planning and design techniques to minimize water-quality impacts, including minimizing land disturbance, minimizing impervious surfaces, clustering development, preserving open space, and maintaining riparian areas with buffer zones to reduce runoff into waterways.
  - **Program 11.6:** Require use of Best Management Practices for construction activities and ongoing business operations to prevent contaminants from entering the storm drain system.
  - **Program 11.9:** Provide educational materials for distribution to developers, businesses, and the general public explaining stormwater-quality issues and requirements, and Best Management Practices to help improve stormwater quality.

#### Energy Element

- **Goal 1:** Move toward a sustainable energy future that increases renewable energy use, energy conservation, energy efficiency, energy self-sufficiency, and limits energy-related financial burdens in Pleasanton.
  - **Program 3.3:** Develop a program or a policy that encourages the installation of alternative energy technology in residential, commercial, and public projects.
- **Policy 4:** Reduce heating and cooling energy use in the city.
  - **Program 4.1:** Require a built environment that uses the properties of nature. For example: where feasible, requiring projects to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use; and, requiring projects to use regenerative energy heating and cooling source alternatives to fossil fuels.
  - **Program 4.2:** Continue to implement parking lot tree planting standards that would substantially cool parking areas and help cool the surrounding environment. Encourage landscaping conducive to solar panels in areas where appropriate.

- **Program 4.3:** Reduce heat gain and air-conditioning demand by requiring light-colored paving material for roads, parking areas, and cool roofs in both new and redeveloped areas when feasible and cost effective.
- **Program 6.3:** Require green building practices to be used in all projects, including those not covered by the mandatory Green Building Ordinance, if feasible.
- **Policy 7:** Promote renewable energy.
  - **Program 7.1:** Encourage public and private entities to generate renewable energy.
  - **Program 7.2:** Use solar in public facilities and encourage the use of solar in private facilities, where feasible and cost effective.
  - **Program 7.3:** Promote and encourage photovoltaic demonstration projects in association with public or private development.
  - **Program 7.5:** For new construction, require roofs that are strong enough and have roof truss spacing to hold photovoltaic panels, where feasible and cost effective.
  - **Program 7.6:** Require solar water heating and/or photovoltaic-ready roofs in new construction, i.e., roofs with wiring installed for a roof-mounted photovoltaic system, where feasible.
  - **Program 7.7:** Support the production of alternative and renewable fuels and fueling stations in Pleasanton.
- **Policy 8:** Consider other sustainable means of supplying energy in the city.
  - **Program 8.3:** Encourage distributed generation which is consistent with the Generator Siting Ordinance. This program would encourage relatively small electrical-generation facilities that could rely on a variety of energy sources such as natural gas, wind, and solar compared to larger facilities that rely almost entirely on diesel fuel. The City specifically targets large businesses to supply their own small electrical-generation facilities.
- **Policy 10:** Encourage businesses to implement appropriate sustainable energy projects.
  - **Program 10.3:** Require the installation of energy efficient lighting.
- **Policy 11:** Strive to meet peak electricity and natural gas needs and to assure reliable power. Work to increase the use of distributed generation technologies that are consistent with the Generator Siting Ordinance.
  - **Program 13.2:** Work with PG&E to design and locate appropriate expansions of the gas and electric system.
- **Policy 14:** Minimize the visual impact of distribution and transmission lines and facilities.
  - **Program 14.1:** Underground local serving electrical transmission and distribution lines in residential and commercial areas where feasible.
  - **Program 14.2:** Place new regional serving transmission and distribution lines underground where feasible.
  - **Program 14.3:** Design utility substations in a visually appealing manner, and minimize their impact on nearby residential areas.

#### *Pleasanton Municipal Code*

The Pleasanton Municipal Code includes regulations regarding water under Title 14, including regulation of water system and water service fees, water connections, and regulations for protection from water contamination. Title 15 of the Pleasanton Municipal Code establishes standards and conditions related to the use and management of the City of Pleasanton sewer transmission system.

Under Municipal Code Section 9.21, the submittal of a Waste Management Plan to the City is required prior to the issuance of a building, demolition, or similar permit. The Waste Management Plan must identify the volume of construction and demolition materials to be generated, the percentage that will be diverted, the percentage to be placed in landfill, and the debris collector/recycler. Review of this application by the City ensures development projects assist the City in meeting accepted diversion rates consistent with the City's Source Reduction and Recycling Plan.

### 3.15.4 - Methodology

The City of Pleasanton prepared a Water Supply Assessment for the Plan Area to evaluate the ability to meet the water supply demand associated with the Specific Plan. Water supply assessments are required to comply with water planning requirements of the California Water Code and Government Code. Much of the information required in the Water Supply Assessment is included in the City's 2010 Urban Water Management Plan. The complete Water Supply Assessment is provided in Appendix I.

FCS obtained information regarding wastewater, recycled water, and storm drainage from the General Plan, General Plan EIR, and the East Pleasanton Specific Plan Background Report.

### Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, utilities and services impacts resulting from the implementation of the proposed Base Plan would be considered significant if the project would:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- d) Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.
- e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- f) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- g) Conflict with federal, state, and local statutes and regulations related to solid waste.
- h) Result in the unnecessary, wasteful, or inefficient use of energy.

### 3.15.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Base Plan and provides mitigation measures where appropriate.

#### Water

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**Impact USS-1: Development and land use activities contemplated by the Specific Plan would not result in a need for additional water supplies or additional treatment capacity beyond what has been planned for.**

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#### *Impact Analysis*

As discussed in the environmental setting section, current water supplies cannot support increases in system demands beyond the year 2015 without the implementation of conservation measures (City of Pleasanton 2010; Zone 7 2010). As such, the 2010 UWMP incorporates the planned implementation of conservation programs and use of recycled water to meet some of the existing and future potable water irrigation demands (City of Pleasanton 2011). Demands resulting from growth within the City will be met through the water conservation efforts outlined in the UWMP, as well as the expansion of recycled water use to irrigation areas within the City that are currently using potable water.

As previously mentioned, water supply is an issue at the forefront of long-term planning efforts in the City. Continued drought conditions will require the City to adopt new methods to stretch its limited supply of water. In May of 2014, the City declared a Local Drought Emergency and instituted a Stage 3 drought declaration intended to reduce water consumption by 25 percent. The City has also approved amendments to Chapter 9.30, Water Conservation Plan, of the Municipal Code, outlining further water reduction measures, including restrictions on outdoor irrigation and decorative water features. In addition, the City is moving forward with its recycled water program, which will reduce the demand for potable water within Zone 7 and assist in creating a more reliable water supply. The City also possesses the flexibility to institute more stringent measures to reduce water demand in the event of a prolonged drought. These measures will assist in ensuring the City's water supply will meet planned future demand.

Development and land use activities contemplated by the Specific Plan would result in an increased demand for potable water. Note that the Specific Plan requires that irrigation water for all but single-family residential development shall be met through a recycled water system to reduce potable water needs. The potable water infrastructure needed to serve the Plan has three basic components: (1) on-site facilities (within the Plan Area), (2) offsite facilities needed to extend services to the Plan Area, and (3) expansion of the recycled water system to exchange recycled water for potable water supplies. On-site facilities would consist of a network of conveyance infrastructure (Exhibit 2-5). Construction of offsite facilities would consist of minor extensions to or from existing water lines within El Charro Road, Valley Avenue, and Stanley Boulevard. Construction of both on and offsite facilities would be required to implement the applicable mitigation measures included in this document to ensure impacts of their construction are less than significant. Expansion of the recycled water system east of the Plan Area is a separate project, and its environmental impacts are analyzed in a separate document.

Pursuant to state law, the City of Pleasanton prepared a Water Supply Assessment (WSA) in January 2014. The WSA concluded that sufficient water supply would be available for the project and City's planned demands during normal, single dry, and multiple dry years. The findings of the WSA are summarized below and the complete document is available in Appendix I of this Draft EIR.

The WSA considered four Specific Plan options to evaluate different residential and non-residential development intensities. Option 5, which is the option that most closely matches the proposed Specific Plan, included 1,430 residential units and 1.68 million square feet of non-residential building space, resulting in a total water demand of 1,041 acre feet per year (afy) (804-afy potable and 238 non-potable). Option 5 exceeds the proposed Specific Plan by 130 residential units and 45,000 square feet of non-residential building space. As such, using the water demand calculations resulting from Option 5 for analysis of the proposed Specific Plan provide for a conservative analysis.

The WSA concludes that potable water demand generated by all project options considered (including Option 5), combined with the City's other planned demands, would be accommodated during normal, single dry, and multiple dry water years. This conclusion is based upon the City's recent recycled water feasibility study and 2010 UWMP, as discussed in the environmental setting section above, which indicates that nearly 2,400 afy of irrigation water use could be provided by recycled water, freeing up an equal amount of potable water supplies for new development such as this project. Furthermore, since the City is currently installing the recycled water lines and expects Phase 2 to be complete by summer 2015, there will be more potable water supply available than the demand from the Plan Area.

The recycled water feasibility study indicated that implementation of recycled water use at the Hacienda Business Park as part of Phase 1A of the recycled water system would save the City more than 1,700 acre-feet of potable water annually. Development in the Plan Area would use only 804 acre-feet of potable water annually. Therefore, once Phase 1A of the recycled water system is implemented and extended to the Hacienda Business Park, the potable water saved would be greater than the demand generated from the Plan Area. Therefore, development and land use activities contemplated by the Specific Plan would not result in a need for additional water supplies.

The potable water/recycled water exchange program will be administered by the City, thereby ensuring its implementation. Consistent with the Specific Plan, as identified in Chapter 8, Public Infrastructure and Services, Specific Plan Area developers would be required to pay the standard city fees for participation in the program prior to project implementation. The City would use the fees to expand the treatment and distribution systems associated with the recycled water program, as necessary, thereby ensuring sufficient potable water is available. It also requires that Plan Area developers extend the City's existing recycled water distribution system to provide irrigation water to other parts of the City that currently use potable water for irrigation.

Additional water conservation would be realized through the implementation of Specific Plan requirements regarding the conservation of potable water by incorporating water conservation fixtures and measures into development projects. Development in the Plan Area would also be required to meet California Green Building Standards Code and Model Water Efficient Landscape Ordinance requirements.

In summary, sufficient potable water would be available to serve the Base Plan, upon implementation of Specific Plan requirements regarding the water exchange program and use of recycled water within the Specific Plan Area. The Specific Plan also includes a number of requirements to ensure that water conservation measures are incorporated into future development projects. Finally, the Specific Plan contemplates a comprehensive network of potable water and recycled water distribution facilities, and the implementation of these facilities would ensure that adequate infrastructure is available to serve the Specific Plan uses.

For these reasons, the Specific Plan would have a less than significant impact on the need for additional water supplies or treatment capacity.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Wastewater**

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**Impact USS-2: Development and land use activities contemplated by the Specific Plan would not require or result in the construction of wastewater treatment facilities or expansion of offsite existing facilities beyond what has been planned for.**

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**Impact Analysis**

Wastewater services are not currently provided to the majority of Plan Area with the exception of the City of Pleasanton’s Operation Service Center. Implementation of the Specific Plan would result in an estimated wastewater generation of approximately 580 afy or 517,791 gallons per day, based on a standard industry assumption that wastewater generation is estimated to represent 90 percent of water consumption. (Non-potable water consumption was excluded from wastewater calculations because it would only be used for irrigation purposes and would not enter the City of Pleasanton’s wastewater infrastructure system.)

Wastewater collection needs within the Plan Area would be adequately met by the installation of 8- to 12-inch sewer lines. The Specific Plan considers two options to convey wastewater offsite (Exhibit 2-7).

In Option 1, a network of underground mains would be constructed that connect the south area development to the west side of the Plan Area, specifically to the existing northward-flowing sewer system in Ironwood Drive. From the intersection of Ironwood Drive and Cornerstone Court, the existing sewer then flows west through the adjacent neighborhoods eventually leading to Kamp Drive, where it then flows north to Stoneridge Drive, then east along Stoneridge Drive to the DSRSD treatment plan. A preliminary study indicates that in order to sewerage the south Plan Area with this alternative, an approximately 865-foot section of pipe in Kamp Drive would need to be upsized



from 8-inch sanitary sewer to 10-inch, or as otherwise required to accommodate flows from the Plan Area (Figure 8.3). This potential sewer alternative is discussed in the City's 2007 Wastewater Master Plan prepared by Carollo Engineers. During the design of the Plan Area, this alternative will have to be modeled to determine the exact upsizing necessary. The north area development would require the construction of approximately 2,500 feet of pipeline along the south side of the Arroyo Mocho from El Charro Road to Stoneridge Drive to connect to an existing 12-inch trunk line within Stoneridge Drive. This also would be modeled at the time of proposed development. This option is the preferred option for wastewater infrastructure.

In summary, Option 1 would include:

- Extension of an approximately 1,600-foot-long sewer line from the Plan Area south of Lake I to an existing 8-inch sewer line in Mohr Avenue.
- Extension of an approximately 350-foot-long sewer line from Busch Road in the Plan Area along Ironwood Drive to an existing 8-inch sewer line.
- Expansion of an existing sewer line in Kamp Drive from 8 to 10 inches starting at the intersection of Kamp Drive and Briones Court extending northwest for 865 feet.
- Extension of an approximately 2,500-foot-long sewer main from El Charro Road south of Arroyo Mocho to an existing sewer main in Stoneridge Drive.
- Connections to existing sewer infrastructure at Valley Avenue's intersections with Busch Road and Boulder Street and the intersection of El Charro and Stanley Boulevard.

Option 2 would include the construction of a sewer main to drain the Plan Area's southern development area to the north utilizing, as necessary, a sewer lift station and force main for flows where gravity sewer line cannot be accommodated. The lift station would provide the pumping capacity necessary to serve areas that would not gravity flow to the west. It would pump the collected effluent through a force main to El Charro Road. Then it would remain either a force main or gravity flow northerly along El Charro Road. The pipeline would then turn to the west along the south side of Arroyo Mocho where 6,600 feet of sewer trunk line would be extended to and expanded in the Stoneridge Drive right-of-way to the intersection of Kamp Drive. This option is a secondary alternative in the Specific Plan, due to the initial and ongoing costs associated with the pump station.

In summary, Option 2 would include:

- Installation of a lift station south of Lake I.
- Extension of an approximately 6,600 foot sewer main from El Charro Road to Kamp Drive, south of Arroyo Mocho and in Stoneridge Drive right of way.
- Connections to existing sewer infrastructure at Valley Avenue's intersections with Busch Road, Boulder Street, and the intersection of El Charro and Stanley Boulevard.

All pipe systems and related infrastructure on- and off-site would be designed to meet city design standards and would be required to implement the applicable mitigation measures included in this document to ensure impacts of their construction are less than significant.

All on-site sanitary sewer facilities are to be constructed by the Plan Area developers and dedicated to the City of Pleasanton, including the lift station. If the second wastewater option is chosen, the installation of mains to the lift station and the corresponding force main from the lift station to the Stoneridge Drive trunk sewer would be triggered by the initial development within the Plan Area. The remainder of the on-site collection system would be installed as development proceeds. All offsite pipelines would also be constructed by the Plan Area developers and dedicated to the City. Offsite facilities, as described above, would be constructed concurrently with the initial development within the Plan Area. Developers would pay the City's impact fee for conveyance, treatment, and disposal.

The City of Pleasanton is currently entitled to 8.5 mgd of the DSRSD's wastewater treatment plant capacity. The City's average annual wastewater flow is approximately 6.0 mgd. The current 8.5 mgd wastewater treatment capacity is sufficient to serve Pleasanton's planned buildout growth as anticipated in this General Plan, including the Plan Area and its potential production of 0.51 mgd (City of Pleasanton 2009; FCS 2013).

Once treated by DSRSD, effluent is exported by LAVWMA. LAVWMA receives treated water from plants operated by the City of Livermore and the DSRSD. The combined average dry weather flow rate from these two facilities is limited by a joint powers agreement to a maximum flow rate of 31.8 mgd. LAVWMA facilities are designed to export a maximum flow of 41.2 mgd during wet weather events (LAVWMA 2013). The LAVWMA export system is believed to be adequate to serve Pleasanton's planned General Plan buildout, including development of the Plan Area (City of Pleasanton 2012).

The Specific Plan requires the installation of the sanitary sewer collection system as illustrated on Exhibit 2-7 and in accordance with all applicable City design standards. The Specific Plan also requires development within the Plan Area to minimize sewage flows by incorporating water conserving fixtures into building designs and using best available control technology to minimize inflow and infiltration into sewer mains. Furthermore, construction of all wastewater collection facilities would be required to implement applicable mitigation measures included in this document and would be required to be constructed and operated in accordance with local, state, and federal regulations.

In summary, while implementation of development and land use contemplated by the Specific Plan would result in increased wastewater flows, the conveyance, treatment, and disposal of these flows have been planned for and the construction of new wastewater treatment facilities or the expansion of existing facilities would not be required. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

### **Mitigation Measures**

No mitigation is necessary.

### **Level of Significance After Mitigation**

Less than significant impact.

### **Recycled Water**

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**Impact USS-3: Development and land use activities contemplated by the Specific Plan would not require or result in the construction of recycled water facilities or expansion of offsite recycled facilities beyond what has been planned for.**

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### **Impact Analysis**

The Plan Area is not currently served by recycled water infrastructure. The Specific Plan requires that irrigation water needs for all but single-family residential development within the Plan Area be met with recycled water. As such, the Specific Plan requires implementation of the recycled water distribution system as planned for in the Specific Plan and in accordance with all applicable city design standards. Furthermore, the Specific Plan incorporates the conservation of potable water by requiring irrigation water conservation fixtures, and measures such as the use of recycled water, in development projects. All on-site facilities would be installed by Plan Area developers. In addition, Plan Area developers would be required to fund extension of the City's existing recycled water distribution system to provide recycled water to other parts of the City that currently use potable water for irrigation.

The City's recycled water system is ultimately anticipated to be fed from DSRSD's RWTF, located west of the Plan Area. In the meantime, the cities of Pleasanton and Livermore have an agreement that allows for development in eastern Pleasanton, such as the Plan Area, to be served by recycled water from the Livermore Water Reclamation Plant until the Pleasanton distribution system can be expanded to the Plan Area. As such, Plan Area irrigation demands would be initially served from recycled water from the City of Livermore's distribution system.

The Livermore Water Reclamation Plant can produce up to 6.0 mgd (2.19 billion gallons per year) of recycled water. In fiscal year 2005/2006, 666,440 gallons per day (243.25 million gallons for the year) were used for offsite irrigation. Planned upgrades to the DSRSD's RWTF would make 4.0 mgd of recycled water available to Pleasanton. According to the Water Supply Assessment prepared for the Specific Plan, the Plan Area would require approximately 238 acre-feet (77 million gallons) per year or 0.2 mgd of recycled water. As such, sufficient capacity exists to provide recycled water from both the Livermore and DSRSD facilities.

Existing infrastructure in the El Charro Road right of way provides a recycled water turnout from the Livermore recycled water system. Future service from the DSRSD would be provided through a recycled water line extension from Stoneridge Drive to El Charro road south of Arroyo Mocho. Connection to either recycled water facility includes the extension of pipelines to the Plan Area from El Charro Road directly south of Staples Ranch and north of the Plan Area, and connections within the Valley Avenue and Stanley Boulevard rights of way. The offsite facilities would be installed by the

Plan Area developers and would be dedicated to the City. Exhibit 2-6 illustrates the Plan Area’s recycled water infrastructure. Construction of offsite recycled water improvements such as pump stations and reservoirs are not expected to be needed for Plan Area development.

Expansion of the existing Pleasanton recycled water system west of the Plan Area would also occur in conjunction with Plan Area development as part of the water exchange program previously described under Impact USS-1 and described in more detail in the Water Services Assessment (Appendix I). Expansion of the Pleasanton recycled water distribution system east to the Plan Area is not anticipated to occur until after buildout of the Specific Plan.

In summary, land use activities contemplated by the Specific Plan would not require or result in the construction of recycled water facilities or expansion of offsite recycled facilities beyond what has been planned for, and sufficient recycled water would be available to serve the Plan Area. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Stormwater**

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**Impact USS-4: Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded offsite storm drainage facilities.**

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**Impact Analysis**

The City of Pleasanton owns and maintains drainage facilities within the City limits consisting of underground pipes, local channels, and natural swales in hillside areas. These facilities carry water runoff within the drainage basin to the flood-control channels (known locally as arroyos).

Existing stormwater drainage in the Plan Area consists primarily of sheet flows and drainage into the existing Zone 7 lakes, as well as limited 24- and 36-inch storm drain systems in the southwestern portion of the Plan Area. Implementation of the Specific Plan could increase stormwater runoff, if adequate design components and mitigation are not incorporated.

Developable portions of the Plan Area have been divided into two watersheds. The western drainage area consists of the Kiewit Property and the Pleasanton Operations Service Center. This area is planned to drain through the existing underground system in Ironwood Drive and a detention basin that would mitigate post development flows (Exhibit 2-8). The eastern drainage area consists of the Pleasanton Transfer Station and Recycling Center, and the Legacy/Lionstone properties north and south of Busch Road, which would drain to Cope Lake (Exhibit 2-8). The developable area north of Lake I would drain to Arroyo Mocho.

The western watershed would utilize existing 24- and 36-inch storm drain systems. The eastern watershed would employ surface level drainage systems in open space and park areas and storm drain piping generally ranging from 12 to 18 inches in diameter and up to 48 inches in developed areas. All pipe systems would be designed per the standards of the City of Pleasanton. Pipe sizes, manhole spacing, inlet locations, etc. would meet or exceed these standards. To ensure implementation of the needed stormwater infrastructure, the Specific Plan includes the following requirements:

- Install the Plan Area stormwater drainage system as illustrated on Exhibit 2-8, and in accordance with all applicable city design standards.
- Stormwater from the Legacy/Lionstone properties shall drain to Cope Lake in accordance with a prior Zone 7 Agreement.
- Stormwater runoff from the Pleasanton Operations Service Center and the Kiewit property may drain through the underground system in Ironwood Drive. It is possible that the Kiewit site and possibly other sites may utilities the Ironwood storm drain system, provided that during the design their combined peak flow does not exceed the storm drain design flow capacity of the Ironwood system. This may require that detention facilities be incorporated into their design.
- Stormwater drainage options for the Pleasanton Transfer Station and Recycling Center include the Ironwood Drive system or Cope Lake. The final determination would be based upon outlying flood water system capacities, detention potential, and/or attainment of private agreements.
- All stormwater leaving individual development sites (including the Pleasanton Transfer Station and Recycling Center) shall meet all applicable City, regional and state clean water standards.
- Coordinate with the Zone 7 Water Agency regarding stormwater release patterns to meet regional flood control objectives.
- Design stormwater detention basins to be capable of retaining the increase in post development peak runoff resulting from the 100-year storm event.
- Design development improvements such as storm drain lines, streets, curb-and-gutters, channels, culverts and open spaces in a comprehensive manner such that no habitable buildings are subject to flooding during the 100-year storm event.

The phasing of the on-site stormwater drainage would be determined by the future phasing of development. Interim detention facilities maybe constructed and operated until the final facilities are in place and would be removed when the connection to the overall drainage system occurs. Implementation of both temporary and permanent stormwater drainage facilities would be required to be consistent with applicable local, state, and regional regulations regarding sizing and water quality. Water quality impacts are discussed in Section 3.8, Hydrology and Water Quality. In addition, implementation of the stormwater system would be required to implement all applicable mitigation measures included in this document.

Development and land uses in the Specific Plan Area would be required to be consistent with the City of Pleasanton Stormwater Management and Discharge Control Ordinance. Each individual project within the Plan Area would be required to treat its stormwater runoff prior to entering the storm drain conveyance system and regional storm drainage detention basins in compliance with local codes and NPDES (National Pollutant Discharge Elimination System) permit requirements.

In summary, the Specific Plan contemplates the installation of new storm drainage infrastructure to accommodate increased stormwater flows such that no net increase in stormwater runoff would occur, and new or expanded offsite storm drainage facilities would not be needed. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Solid Waste**

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**Impact USS-5: Development and land use activities contemplated by the Specific Plan would not generate substantial amounts of solid waste that may result in the unnecessary use of regional landfill capacity.**

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**Impact Analysis**

Construction and operational solid waste generation characteristics of the Specific Plan uses are discussed separately below.

*Construction Waste Generation*

Implementation of development in accordance with the Specific Plan would include the demolition of approximately 96,100 square feet of existing non-residential uses (inclusive of the Pleasanton Transfer Station and Recycling Center), and the construction of 1.6 million square feet of commercial uses and 4.8 million square feet of residential uses. An estimate of the total construction and demolition debris generated by the proposed Base Plan is provided in Table 3.15-4, based on construction and demolition debris waste generation rates published by the U.S. Environmental Protection Agency. Note that nonresidential and residential construction activities were calculated separately because of differences in waste generation rates.

**Table 3.15-4: Construction Solid Waste Generation**

Activity	Type	Waste Generation Rate	Square Feet	Waste Generation (tons)
Demolition	Nonresidential	155 pounds/square foot	96,100	7448
Construction	Nonresidential	3.89 pounds/square foot	1,636,000	3182
	Residential	4.38 pounds/square foot	4,873,000	10,672
Net Total				21,302
Note: 1 ton = 2,000 pounds Source: Gates and Associates 2014; FCS 2013; U.S. Environmental Protection Agency, 1998.				

Implementation of the Specific Plan is estimated to generate 21,302 tons of construction and demolition debris. This tonnage would be spread out over the length of Specific Plan buildout, and the actual volumes of construction waste disposed of at any one time are not expected to be more than several tons of debris.

As indicated by Municipal Code Section 9.21, the submittal of a Waste Management Plan to the City is required prior to the issuance of a building, demolition, or similar permit. The Waste Management Plan must identify the volume of construction and demolition materials to be generated, the percentage that will be diverted, the percentage to be placed in landfill, and the debris collector/ recycler. Review of this application by the City ensures development projects assist the City in meeting accepted diversion rates consistent with the City’s Source Reduction and Recycling Plan. Therefore, short-term construction impacts on landfill capacity would be less than significant.

*Operational Waste Generation*

Daily and annual operational solid waste generation estimates are provided in Table 3.15-5. Operational solid waste generation for non-residential and residential uses was calculated using standard waste generation rates provided by the California Integrated Waste Management Board. Note that the estimates in the table are considered conservative estimates and likely overstate actual operational solid waste generation.

**Table 3.15-5: Operational Solid Waste Generation**

Activity	Size	Waste Generation Rate	Daily Total (Tons)	Annual Total (tons)
Non-Residential	1,636,000	0.1 pound/square foot/day	81.8	29,857.0
Residential	1,300 units	10 pounds/unit/day	6.5	2,372.5
Net Total			88.3	32,229.5
Note: 1 ton = 2,000 pounds Source: Gates and Associates 2013; FCS 2013.				

The Base Plan is estimated to generate a net total 88.3 tons of solid waste on a daily basis and 32,229.5 tons on an annual basis. While regional landfill capacity would be available to accommodate this amount of solid waste, this figure could be substantially reduced through recycling and waste reduction practices and would avoid the unnecessary use of landfill capacity. To encourage solid waste diversion, the Specific Plan includes the following requirements:

- Promote the reduction of solid waste through re-use, recycling, composting, and other transformation of wastes.
- Design non-residential development to facilitate opportunities for solid waste recovery and centralized collection, as feasible.

In addition, General Plan Program 26.18 requires that residential projects with more than three units and all non-residential projects prepare and implement a Project Waste Diversion Plan that includes a discussion of the project's diversion strategies. The Plan must include a description of on-site disposal, composting and recycling facilities, and a discussion of any pre-waste stream conservation measures appropriate to the project. The City would review and approve waste diversion plans as part of the land entitlement process for each project within the Plan Area. Implementation of Specific Plan requirements and General Plan Program 26.18 would require development projects within the Specific Plan boundaries to implement operational recycling and waste reduction practices to the maximum extent feasible, reduce operational solid waste generation, and conserve landfill capacity. Therefore, long-term operational impacts on landfill capacity would be less than significant.

#### ***Level of Significance Before Mitigation***

Less than significant impact.

#### ***Mitigation Measures***

No mitigation is necessary.

#### ***Level of Significance After Mitigation***

Less than significant impact.

### **Energy**

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**Impact USS-6:            Development and land use activities contemplated by the Specific Plan would not result in the unnecessary, wasteful, or inefficient use of energy.**

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#### ***Impact Analysis***

Pacific Gas and Electric Company (PG&E) would provide electricity and natural gas service to the Plan Area. All on-site energy connections would be located underground in public rights-of-way or public-utility easements.

The Base Plan's estimated building electricity and natural gas consumption following construction is summarized in Table 3.15-6, using consumption figures provided by PG&E and the U.S. Energy Information Administration. As shown in the table, the Base Plan is estimated to demand a net total



of 36.7 million kilowatt hours (kWH) and 160.7 million cubic feet of natural gas annually at full buildout.

**Table 3.15-6: Estimated Energy Consumption**

Use	Energy Source	Annual Consumption Rate	Unit	Estimated Annual Consumption
Commercial	Electricity	15.7 kWH/square foot	1,636,000	25.7 million kWH
	Natural Gas	58.3 cubic feet/square foot		95.7 million cubic feet
Residential	Electricity	8,492 kWH/per household	1,300 households	11.0 million kWH
	Natural Gas	50,000 cubic feet/per household		65.0 million cubic feet
<b>Totals</b>	<b>Electricity</b>			<b>36.7 million kWH</b>
	<b>Natural Gas</b>			<b>160.7 million cubic feet</b>
Note: kWH = Kilowatt hours Source: Pacific Gas and Electric Company, 2011; Energy Information Administration, 2007.				

New residential and commercial development within the Plan Area would be required to comply with the Pleasanton Climate Action Plan’s applicable energy conservation and reduction measures as well as the applicable measures of the General Plan’s Energy Element. In addition, the Specific Plan uses would be subject to the most recently adopted edition of the Title 24 energy efficiency standards at the time building permits are sought. Title 24 standards include a number of requirements associated with energy conservation, thereby ensuring that the Specific Plan uses would not result in the inefficient, wasteful, or unnecessary use of energy. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

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## SECTION 4: CUMULATIVE EFFECTS

### 4.1 - Introduction

The California Environmental Quality Act (CEQA) Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project’s incremental effects are cumulatively considerable. Cumulatively considerable means that “. . . the incremental effects of an individual 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.” In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), “. . . the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone.” The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute, rather than on the attributes of other projects that do not contribute to the cumulative impact.

The proposed Base Plan’s cumulative impacts were considered in conjunction with other proposed and approved projects and build out of the General Plan in the City of Pleasanton. In addition, pending and approved projects in the City of Livermore and surrounding unincorporated portions of Alameda County were considered. Table 4-1 and Table 4-2 provide a list of the other projects considered in the cumulative analysis.

**Table 4-1: Cumulative Projects within the City of Pleasanton**

Location	Residential (Dwelling Units)	Commercial (square feet)	Public and Institution (Square feet)	Industrial (square feet)	Status
Hacienda Business Park	2,329	1,704,194	—	—	Includes approved, pending, and potential buildout projects
Downtown	70	100,000	47,420	—	Approved
Koll Center Parkway	—	184,370	—	—	Approved
Stoneridge Mall	750	353,500	—	—	Approved
Other	2,500	2,823,040	250,000	200,070	Approved

Source: City of Pleasanton 2014

**Table 4-2: Cumulative Projects outside the City of Pleasanton**

Jurisdiction	Project	Characteristics	Location	Status
City of Dublin	Kaiser Dublin Medical Center	1.2 million square feet of medical campus and commercial uses	58 acres between I-580 and Dublin Boulevard, east of Fallon Gateway shopping center and west of the Dublin Boulevard and Carnmore Place intersection	Pending
	Lot 3 Residential	122 townhomes	Northeast corner of Dublin Boulevard and Keegan Street	Approved
	Subarea 3	330 single-family homes and 107 townhomes	Northeast corner of Dublin Boulevard and Lockhart Street	Approved
	Dublin Ranch West/Wallis Ranch	806 residential units	West of Tassajara Road and Fallon Road intersection	Approved
	Moller Ranch/Casamira Valley	370 single family homes	East of Tassajara Road south of county limits	Approved
	Frederich/Vargas	48 single family homes	West of Tassajara Road and Fallon Road intersection	Approved
	Fallon Gateway Retail Center	Intersection of Fallon Road and I-580	42,160 additional square feet	Approved
County of Alameda	Cemex Eliot Quarry	Surface Mining Permit and Reclamation Plan	975.26 acres between Stanley Boulevard, Vineyard Avenue and Isabel Avenue	Approved
	Sunol Quarry Project	Surface mine expansion	6527 Calaveras Road, Sunol	Pending
	Concannon Vineyards	50,615 square foot building	South Livermore Avenue and Tesla Road	Pending
	Greenville Road Subdivision Project	8 lot subdivision for residential and agricultural development	Greenville Road and Cedar Mountain Road	Pending
	Vision Recycling Green and Wood Material Chip and Grinding Facility	Chip and grind facility on 2.5 acres	30 Greenville Road	Pending
Source: County of Alameda 2014; City of Dublin 2015; City of Pleasanton 2015.				

## 4.2 - Cumulative Impact Analysis

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Key principles established by this section include:

- A cumulative impact only occurs from impacts caused by the proposed project and other projects. An EIR should not discuss impacts that do not result from the proposed project.
- When the combined cumulative impact from the increment associated with the proposed project and other projects is not significant, an EIR need only briefly explain why the impact is not significant; detailed explanation is not required.
- An EIR may determine that a project's contribution to a cumulative effect impact would be rendered less than cumulatively considerable if a project is required to implement or fund its fair share mitigation intended to alleviate the cumulative impact.

The cumulative impact analysis that follows relies on these principles as the basis for determining the significance of the proposed Base Plan's cumulative contribution to various impacts.

### 4.2.1 - Aesthetics, Light, and Glare

The geographic scope of the cumulative aesthetics, light, and glare analysis is the area surrounding the Plan Area. This is the area within view of the project site; therefore, the area most likely to experience changes in visual character or experience light and glare impacts.

Projects in Table 4-1 and Table 4-2 may have the potential to result in cumulatively significant aesthetics, light, and glare impacts. The proposed Specific Plan would not have significant impacts on scenic vistas, visual character, or light and glare, because Chapter 5 of the Specific Plan establishes development standards and design guidelines that provide certainty that the Specific Plan uses would not degrade visual character and would not introduce substantial sources of light and glare. Other projects located within the City of Pleasanton or neighboring jurisdictions would be required to implement applicable code requirements related to building height, building materials, and exterior lighting, and any projects that result in significant impacts related to aesthetics, light, and glare would be required to mitigate for their impacts. Because the proposed Specific Plan's aesthetic, light, and glare impacts would be less than significant and would not require mitigation, implementation of the proposed Specific Plan would not result in cumulatively significant impacts to aesthetics, light and glare, or a cumulatively considerable contribution to any such impacts.

### 4.2.2 - Air Quality

The geographic scope of the cumulative air quality analysis includes the San Francisco Bay Area Air Basin (Air Basin), which is identical to the boundaries of the San Francisco Bay Area Air Quality Management District. The Air Basin consists of Napa, Marin, San Francisco, Contra Costa, Alameda, San Mateo, and Santa Clara Counties; the southern portion of Sonoma County; and the western portion of Solano County. Air pollution is regarded as a regional issue; therefore, this area would be most likely to be impacted by emissions from the proposed Specific Plan uses.

Cumulative impact analysis is guided by buildout assumptions identified in regional population projections for the Air Basin. BAAQMD, which oversees air quality in the Air Basin, uses the Association of Bay Area Governments' population and vehicle miles traveled (VMT) growth projections as the basis for its air pollutant projections and reduction strategies contained in its 2010 Clean Air Plan. While the proposed project's increase in VMT would be less than the projected population increase, it would result in construction equipment and vehicle exhaust air quality impacts that would remain significant and unavoidable after the implementation of mitigation and, therefore would be inconsistent with the 2010 Clean Air Plan. As such, the proposed Base Plan, in conjunction with other future development projects, would have cumulatively considerable impacts in this regard.

The Base Plan would result in a cumulatively considerable short-term net increase of criteria pollutants that would remain significant and unavoidable after implementation of mitigation. Therefore, the proposed Base Plan would, in conjunction with other future development projects, have a cumulatively considerable impact associated with inconsistency with regional air quality planning or a cumulative net increase in nonattainment pollutants.

The proposed Base Plan would not result in an air quality violation or contribute substantially to an existing or project air quality violation, after incorporation of mitigation, nor would it expose sensitive receptors to substantial air pollutants or odors after incorporation of mitigation.

Overall, implementation of the Base Plan would result in significant and unavoidable cumulatively considerable air quality impacts.

### 4.2.3 - Biological Resources

The geographic scope of the cumulative biological resources analysis is the Plan Area and directly adjacent areas. Biological impacts tend to be localized; therefore, the area near the proposed Specific Plan area would be the area most affected by Base Plan construction activities and operation (generally within a 0.5-mile radius).

The Plan Area is considered heavily disturbed from historic mining practices; however, the 11 habitat types (including perennial stream, riparian woodland, riparian scrub, coyote brush scrub, ornamental oak woodland, eucalyptus, tamarisk scrub, non-native annual grassland, open water, disturbed, and developed) areas provide potential habitat for special status species. The buildout of the Plan Area, as well as other future development projects in the area, may result in potential impacts associated with special status plant species, California red-legged frog, California tiger salamander, burrowing owl, and nesting bird species. In addition, buildout of the Plan Area may have impacts to state and federal jurisdictional water features and locally protected trees. However, implementation of mitigation as outlined in Section 3.3, Biological Resources would reduce potential impacts to a level of less than significant. Therefore, implementation of the proposed Specific Plan in conjunction with other future development projects would not result in cumulatively significant impacts to biological resources, or a cumulatively considerable contribution to any such impacts.

#### 4.2.4 - Cultural Resources

The geographic scope of the cumulative cultural resources analysis is the Plan Area. Cultural resource impacts tend to be localized; therefore, the area near the proposed Specific Plan Area would be the area most affected by Base Plan activities (generally within a 500-foot radius).

The entire Plan Area is heavily disturbed from historic mining practices. Nearly all the land within the Plan Area has been previously disturbed, and there are no known cultural resources within the Plan Area. Development activities associated with proposed Specific Plan, as well as any future development within the Plan Area, would result in ground-disturbing activities that may encounter previously undiscovered cultural resources. Standard construction monitoring and, if necessary, avoidance or recovery procedures as outlined in Section 3.4, Cultural Resources would be required for any project with the potential to adversely affect cultural resources. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively significant impact on cultural resources, or a cumulatively considerable contribution to any such impacts.

#### 4.2.5 - Geology, Soils, and Seismicity

The geographic scope of the cumulative geology, soils, and seismicity analysis is the Plan Area. Geologic, soil, and seismic impacts tend to be localized; therefore, the area near the proposed Specific Plan area would be the area most affected by Base Plan activities.

The Plan Area is heavily disturbed by historic mining practices, industrial use, and construction of flood control facilities. Geologic hazards within the Plan Area include strong ground shaking, liquefaction potential, lateral spreading, and slope failure. However, implementation of standard conditions of approval requiring site-specific geotechnical analysis and design, as outlined in Section 3.5, Geology, Soils, and Seismicity, would ensure that impacts are less than significant. Development activities associated with the proposed Specific Plan, as well as other future development projects near the Plan Area, would be required to comply with building code standards for foundations and structures to ensure that buildings are adequately supported to withstand seismic events and abate any unstable soil conditions. In addition, future development would be required to implement standard erosion control measures to ensure that ground-disturbing activities do not create offsite hazards. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively significant impact on geology, soils, and seismicity or a cumulatively considerable contribution to any such impacts.

#### 4.2.6 - Greenhouse Gas Emissions

Climate change is a global issue; therefore, the geographic scope of this impact is global. However, for the purposes of cumulative impact analysis under CEQA, the State of California is used as the geographic bounds.

The proposed Base Plan would be consistent with the City of Pleasanton's Climate Action Plan, and would achieve the City's GHG reduction goal. In addition, the Base Plan would not exceed the BAAQMD's threshold for plan-level greenhouse gas generation. Therefore, implementation of the

proposed Specific Plan would not result in a cumulatively considerable contribution to a cumulative greenhouse gas impact.

#### **4.2.7 - Hazards and Hazardous Materials**

The geographic scope of the cumulative hazards and hazardous materials analysis is the Plan Area. Adverse effects of hazards and hazardous materials tend to be localized; therefore, the area near the proposed Specific Plan Area would be the area most affected by Base Plan activities.

The Plan Area is heavily disturbed by historic mining practices, industrial use, and construction of flood control facilities. Land uses within the Specific Plan area currently or formerly used hazardous materials. Mitigation is proposed that would require all development activities associated with the proposed Specific Plan to conduct Phase I Environmental Site Assessments. Other future development projects potentially impacted by these sites would also be required to remediate any potential hazardous materials. All development projects within the proposed Specific Plan, as well as other future development projects, would be required to comply with all applicable hazardous materials handling and storage requirements under state and federal law to ensure that public health and safety are not at risk. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively significant impact on hazards and hazardous materials, or a cumulatively considerable contribution to any such impacts.

#### **4.2.8 - Hydrology and Water Quality**

The geographic scope of the cumulative hydrology and water quality analysis is the Pleasanton area. Hydrologic and water quality impacts concern local waterways and groundwater sources, which affect the greater Pleasanton area.

Development activities associated with the proposed Specific Plan may impact water quality. Compliance with and implementation of applicable regulations and requirements of the Clean Water Act, the National Pollutant Discharge Elimination System, the Regional Water Quality Control Board, Stormwater Pollution Prevention Plans, the Construction General Plan Permit, Stormwater Management Plans, and standard conditions of approval would minimize water quality impacts. Other future development projects in the Pleasanton area would be required to implement similar requirements and follow all applicable regulations related to stormwater runoff. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively significant impact on hydrology and water quality, or a cumulatively considerable contribution to any such impacts.

#### **4.2.9 - Land Use and Planning**

The geographic scope of the cumulative land use analysis is the City of Pleasanton boundaries. Land use decisions are made at the city level; therefore, the Pleasanton city limits are the appropriate geographic scope.

The Specific Plan and its contemplated land uses were found to be consistent with the City of Pleasanton General Plan and Zoning Ordinance. Future development projects would be required to



demonstrate consistency with General Plan policies and Zoning Ordinance policies, and ensure that they do not create land use conflicts with adjacent properties. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively considerable impact on land use and planning, or a cumulatively considerable contribution to any such impacts.

#### 4.2.10 - Noise

The analysis of cumulative noise impacts encompasses the ambient noise environment in and around the Plan Area, as well as roadways that would experience increases in traffic volumes from Base Plan-generated trips.

The cumulative noise impact analysis is guided by evaluating increases in ambient noise levels in the project vicinity relative to existing conditions. Construction noise would result in temporary increases in ambient noise levels, and mitigation is proposed that would require implementation of noise control measures during construction activities. Because construction would be temporary, ambient noise levels would not experience a permanent increase; therefore, no cumulatively considerable increase would occur.

Vehicular trips generated by the proposed Base Plan would cause ambient noise levels along Stanley Boulevard and Valley Avenue to exceed acceptable noise standards for sensitive receptors under Existing Plus Project and/or 2035 conditions. The plan includes a 50-foot setback and a noise barrier wall along Stanley Boulevard to protect adjacent proposed residential uses. Mitigation would require future residential development along both Valley Avenue and Stanley Boulevard to prepare a project-specific acoustical study to verify that exterior and interior standards would be met and noise barrier walls are of appropriate height. Therefore, impacts would not be cumulatively considerable.

The proposed Base Plan would not result in potentially significant construction and operational vibration to offsite and onsite sensitive receptors. Offsite and onsite sensitive receptors would not be exposed to significant sources of vibration, and impacts would not be cumulatively considerable. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in cumulatively significant noise impacts, or a cumulatively considerable contribution to any such impacts.

#### 4.2.11 - Population and Housing

The geographic scope of the cumulative population and housing analysis is the nine-county San Francisco Bay Area region. Population and housing needs are estimated at the regional level; therefore, the San Francisco Bay Area region is an appropriate geographic scope.

The Specific Plan is consistent with the regional growth projections outlined by the Association of Bay Area Governments (ABAG) and regional housing needs allocations. Other projects within the San Francisco Bay Area region would be required to demonstrate consistency with population projections and residential land use designations. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a

cumulatively significant impact on population and housing, or a cumulatively considerable contribution to any such impacts.

#### 4.2.12 - Public Services and Recreation

The geographic scope of the cumulative public services analysis is the Pleasanton area. The service area of the respective service providers primarily encompasses Pleasanton and surrounding communities and, therefore, would be most affected by Base Plan activities.

The proposed Specific Plan and future development projects would increase demands for fire protection, police protection, schools, libraries, parks, trails, and other recreational facilities. These individual projects would be required to provide development fees to help finance capital improvements to the facilities in order to maintain acceptable service ratios and performance standards. The proposed Specific Plan would provide approximately 53 acres of public park facilities and public spaces. The facilities would be sized to accommodate increased demands resulting from planned growth and, therefore, would be a cumulative benefit of the proposed Base Plan. In addition, while proposed development would increase the need for police and fire protection, development under the proposed Specific Plan would be required to implement mitigation to ensure appropriate levels of service, such as payment of in-lieu-of fees. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively significant impact on public services and recreation, or a cumulatively considerable contribution to any such impacts.

#### 4.2.13 - Transportation

The geographic scope of the cumulative transportation analysis is the Pleasanton area. Note that Section 3.14, Transportation provides a detailed evaluation of Base Plan-related transportation impacts.

Development projects listed in Table 4-1 and Table 4-2 would generate new vehicle trips that may trigger or contribute to unacceptable intersection or roadway segment operations. All projects would be required to mitigate for their fair share of impacts.

At buildout, the Specific Plan would result in a net increase of 29,390 daily trips, including 2,495 trips during the weekday morning peak hour, and 3,053 trips during the weekday afternoon peak hour. With the addition of these trips, several intersections would operate at deficient levels of service. Mitigation is included that would require payment of regional and local traffic impact fees that would fund improvements resulting in acceptable performance levels under existing, near-term and cumulative with project scenarios. All identified improvements are identified in and funded through the City of Pleasanton or Tri-Valley traffic impact fee programs. As such, impacts would not be cumulatively considerable for intersection or roadway segment operations.

With regard to alternative transportation, development in the Plan Area occurring before the addition of parking capacity at the existing East Pleasanton BART station or the construction of a Livermore BART station would result in short-term (next 10 years) significant unavoidable transit

parking impacts for which no feasible mitigation is available. Therefore, impacts would be cumulatively considerable in this regard.

For all other transportation-related areas, implementation of the proposed Specific Plan would result in either less than significant impacts or less than significant impacts after the implementation of mitigation, and therefore would not be cumulatively considerable. Other projects that result in similar impacts would be required to mitigate for their impacts. As such, impacts would not be cumulatively considerable for all other transportation-related areas.

#### **4.2.14 - Utility Systems**

The proposed Specific Plan's cumulative impacts to various utility systems are discussed separately below.

##### **Potable Water**

Potable water demand from the proposed Specific Plan, in conjunction with other planned growth in the City of Pleasanton, is accounted for in the City's 2010 Urban Water Management Plan. As indicated in the Urban Water Management Plan, the proposed Specific Plan's water demand was accounted for in the City's long-term water supply planning; therefore, the agency has adequate existing and planned water supplies to satisfy projected demand, including during drought-year scenarios, through 2030. Water demands are met through the water exchange program where areas west of the Plan Area would convert potable water use to recycled water use for irrigation purposes. In addition, the proposed Specific Plan and future projects would be required to implement water-efficiency measures to reduce the demand for potable water as required by Title 24. Furthermore, the proposed Specific Plan and some other future development projects would be served by recycled water systems for outdoor irrigation, which would further reduce the demand for potable water. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively significant impact on potable water, or result in a cumulatively considerable contribution to potable water impacts.

##### **Wastewater**

Wastewater generation by development projects within the Plan Area, as well as other planned growth within the Dublin-San Ramon Services District, is factored into the agency's long-range planning projections. Sufficient capacity exists to serve development of the Plan Area, and such development would not create capacity deficiencies regarding conveyance, treatment, or disposal. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not have a cumulatively significant impact on wastewater, or result in a cumulatively considerable contribution to wastewater impacts.

##### **Recycled Water**

Expansion of the existing Pleasanton recycled water system west of the Plan Area would occur in conjunction with Plan Area development as part of the water exchange program. Completion of this expansion would ensure that sufficient recycled water infrastructure and supply is available to serve buildout of the Plan Area. Therefore, implementation of the proposed Specific Plan, in conjunction

with other future development projects, would not result in a cumulatively significant impact on recycled water, and would not result in a considerable contribution to recycled water impacts.

### **Storm Drainage**

Development within the Plan Area would increase the quantity of impervious surfaces and, therefore, would increase storm drainage needs. Future development projects within the Specific Plan Area would be required to demonstrate no net increase in storm drainage, or provide drainage impoundment facilities that would detain runoff prior to discharge into the storm drain facilities. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively significant impact on storm drainage or result in a cumulatively considerable contribution to storm drainage impacts.

### **Solid Waste**

The proposed Specific Plan and other future development projects would generate construction and operational solid waste that would need to be disposed of in local landfills. Sufficient landfill capacity is available to serve the proposed Specific Plan, as well as other planned projects, through 2037. Development within the Plan Area and the City of Pleasanton would be required to implement construction and operational waste management and diversion plans to reduce waste generation. Therefore, implementation of the proposed Specific Plan, in conjunction with other future development projects, would not result in a cumulatively significant impact on solid waste or a cumulatively considerable contribution to solid waste impacts.

### **Energy**

The proposed Specific Plan, in conjunction with other future development in the Pacific Gas and Electric Company (PG&E) service area, would increase demand for electricity and natural gas. PG&E has adequate existing energy supplies to meet existing demand, and has access to other energy supplies necessary to meet future demand. In addition, new construction within the proposed Specific Plan and other future projects would be required to implement energy-efficient measures in accordance with the most current Title 24 standards to reduce energy demand. Therefore, implementation the proposed Specific Plan, in conjunction with other future development projects, would not have a cumulatively significant impact on energy or result in a cumulatively considerable contribution to energy impacts.

## SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

### 5.1 - Introduction

In accordance with CEQA Guidelines Section 15126.6, this Environmental Impact Report (EIR) contains a comparative impact assessment of alternatives to the Base Plan (proposed project). The primary purpose of this section is to provide decision makers and the general public with a reasonable number of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6).

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
  - Failure to meet most of the basic project objectives;
  - Infeasibility; or
  - Inability to avoid significant environmental effects.

Eight alternatives to the Base Plan are analyzed below. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both the Base Plan and the alternative would result in a less than significant impact). The actual degree of impact may be slightly different between the Base Plan and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

#### 5.1.1 - Significant Unavoidable Impacts

The Base Plan would result in the following significant and unavoidable impacts:

- **Clean Air Plan Consistency** – The Specific Plan would not further all the primary goals of the 2010 Clean Air Plan as a result of construction equipment and vehicle exhaust air quality impacts that would remain significant and unavoidable after the implementation of mitigation.
- **Criteria Pollutants** – Large construction projects within the Plan Area involving extensive material transport would result in significant construction equipment emissions even after the implementation of mitigation if extensive equipment and/or material transport is involved. Therefore, impacts would remain significant and unavoidable.
- **Traffic Noise Increase** – Project-related traffic would result in permanent increases in ambient noise levels for which no feasible mitigation is available. Noise level increases would not exceed allowable community noise standards, but would increase roadway noise by over 4

dBa in several locations, which is considered a significant impact by the Pleasanton General Plan. Therefore, impacts would be significant and unavoidable.

- **Public Transit** – Development and land use activities contemplated by the Specific Plan would result in short-term (next 10 years) significant unavoidable transit parking impacts for which no feasible mitigation is available.

## 5.2 - Project Objectives
















As stated in Section 2, Project Description, the objectives of the proposed project are to:

- Facilitate the logical, orderly, and planned development of the Plan Area through the use of a comprehensive planning document.
- Reflect the unique character of the Plan Area’s lakefront and habitat setting in the specific plan design.
- Maintain and enhance the community’s quality of life.
- Promote economic growth through new capital investment, the creation of new jobs, the development of new housing opportunities, and expansion of the tax base.
- Facilitate the redevelopment of the Plan Area from an industrial and mining area to a mix of residential, retail, campus office, industrial, parks, and open space/conservation uses.
- Provide sufficient modes of circulation within the Plan Area and connectivity to surrounding land uses.
- Facilitate the use of alternative modes of transportation through an enhanced circulation system, site planning, and design techniques.
- Minimize adverse impacts to sensitive uses through the use of site planning and design techniques.
- Protect existing habitat and special-status species within the Specific Plan Area.
- Reflect the lakefront and open space character of the site.

## 5.3 - Alternatives to the Proposed Project

The City of Pleasanton is considering a total of eight alternative plans for the Plan Area in addition to the Base Plan (Exhibit 5-1). Each alternative includes the same general land use types and encompasses the same project boundaries. With the exception of the No Project Alternative, all “build” alternatives include an open space buffer around Zone 7 facilities and an open space strip along Stanley Boulevard and Valley Avenue.



- |   |                                      |   |                                       |
|---|--------------------------------------|---|---------------------------------------|
|  | Single Family Residential - 4 DU/AC  |  | Retail                                |
|  | Single Family Residential - 8 DU/AC  |  | Industrial                            |
|  | Single Family Residential - 11 DU/AC |  | Public & Institutional                |
|  | Zone 7 Open Space                    |  | Destination Use                       |
|  | Private Open Space                   |  | Trail                                 |
|  | City Parks                           |  | Potential Public School/<br>Park Site |
|  | Campus Office                        |  | Staging Area                          |
|  | Retail Overlay                       |   |                                       |

NOTE : Trails are conceptual only. Those on Zone 7 property will be subject to Zone 7 review and approval.

Source: City of Pleasanton, 2013



## Exhibit 5-1 Land Use Plan

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The main differences among the alternatives relate to the number of residential units, the location and mix of single-family unit types, the amount of industrial development, extent of the El Charro Road extension, provision of City parks and open space, and potential relocation of the Pleasanton Transfer Station and Recycling Center.

Table 5-2, Table 5-3, and Table 5-4 provide a summary and comparison of the Base Plan and the Base Plan alternatives. Exhibits 5-2 through Exhibit 5-8 illustrate the Base Plan alternatives.

**Table 5-1: Specific Plan Alternatives Summary**

Alternative	Maximum Buildout Potential (Square Feet)			Reduction Compared with Base Plan
	Residential <sup>1</sup>	Non-residential	Total	
Base Plan (Proposed Project)	4,873,000 (1,300 units)	1,636,000	6,509,000	0
No Project/No Build	0 (0 units)	0	0	-6,509,000
No Project	624,000 (206 units)	1,741,766	2,365,766	-4,143,234
Alternative 1	3,974,000 (1,430 units)	1,636,000	5,610,000	-899,000
Alternative 2	4,116,000 (1,000 Units)	1,636,000	5,752,000	-757,000
Alternative 3	4,000,000 (800 Units)	1,636,000	5,636,000	-873,000
Alternative 4 (partial El Charro)	2,500,000 (500 units)	478,000	2,978,000	-3,531,000
Alternative 5 (without El Charro)	2,500,000 (500 units)	478,000	2,978,000	-3,531,000
Alternative 6: Park	0	100,000	100,000	-6,409,000
Note: <sup>1</sup> Residential square footage based on the East Pleasanton Infrastructure Feasibility Calculations, Economic & Planning Systems, Inc., 2013. Source: City of Pleasanton, 2014.				

**Table 5-2: Comparison of Residential Development Component**

Alternative	Single-Family du/a			Multi-Family du/a		Residential Units	Square feet of Development <sup>1</sup>	Percent Single Family/ Multi-Family
	<5	5.1-8	8.1-11	11.1-23	23.1-30			
Base Plan (Proposed Project)	558	456	286	—	—	1,300	4,873,000	100/0
<b>Alternatives</b>								
No Project/No Build	—	—	—	—	—	0	0	0/0
No Project	City	—	—	—	—	0	0	0/0
	County	3 <sup>2</sup>	203 <sup>2</sup>	—	—	206	624,000	100/0
Alternative 1	358	440	132	170	330	1,430	3,974,000	65/35
Alternative 2	558	442	—	—	—	1,000	4,116,000	100/00
Alternative 3	800	—	—	—	—	800	4,000,000	100/00
Alternative 4	500	—	—	—	—	500	2,500,000	100/00
Alternative 5	500	—	—	—	—	500	2,500,000	100/00
Alternative 6	0	0	0	0	0	0	0	0/0
Notes: du/a = dwelling units per acre <sup>1</sup> Estimate based on square footages used in the East Pleasanton Infrastructure Feasibility Calculations, Economic & Planning Systems, Inc., 2013. <sup>2</sup> Estimate based on Alameda County General Plan Map Medium Density Residential (maximum 8 du/ac) and Large Parcel Agriculture (1 du/parcel) land use designations. Source: City of Pleasanton, 2014.								

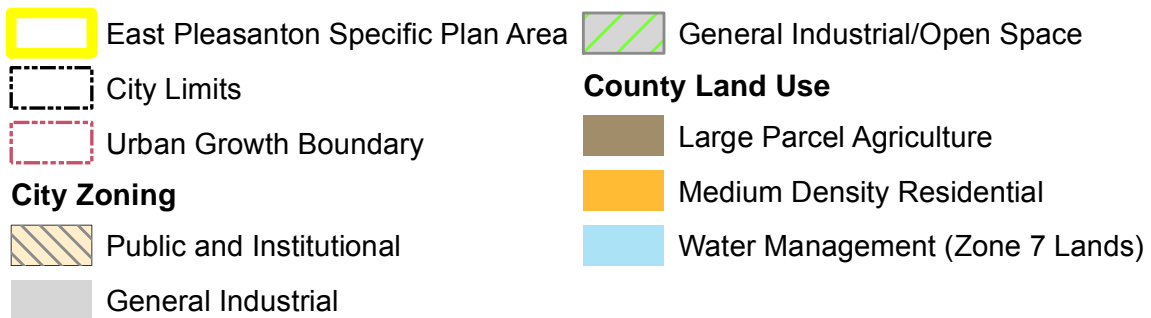
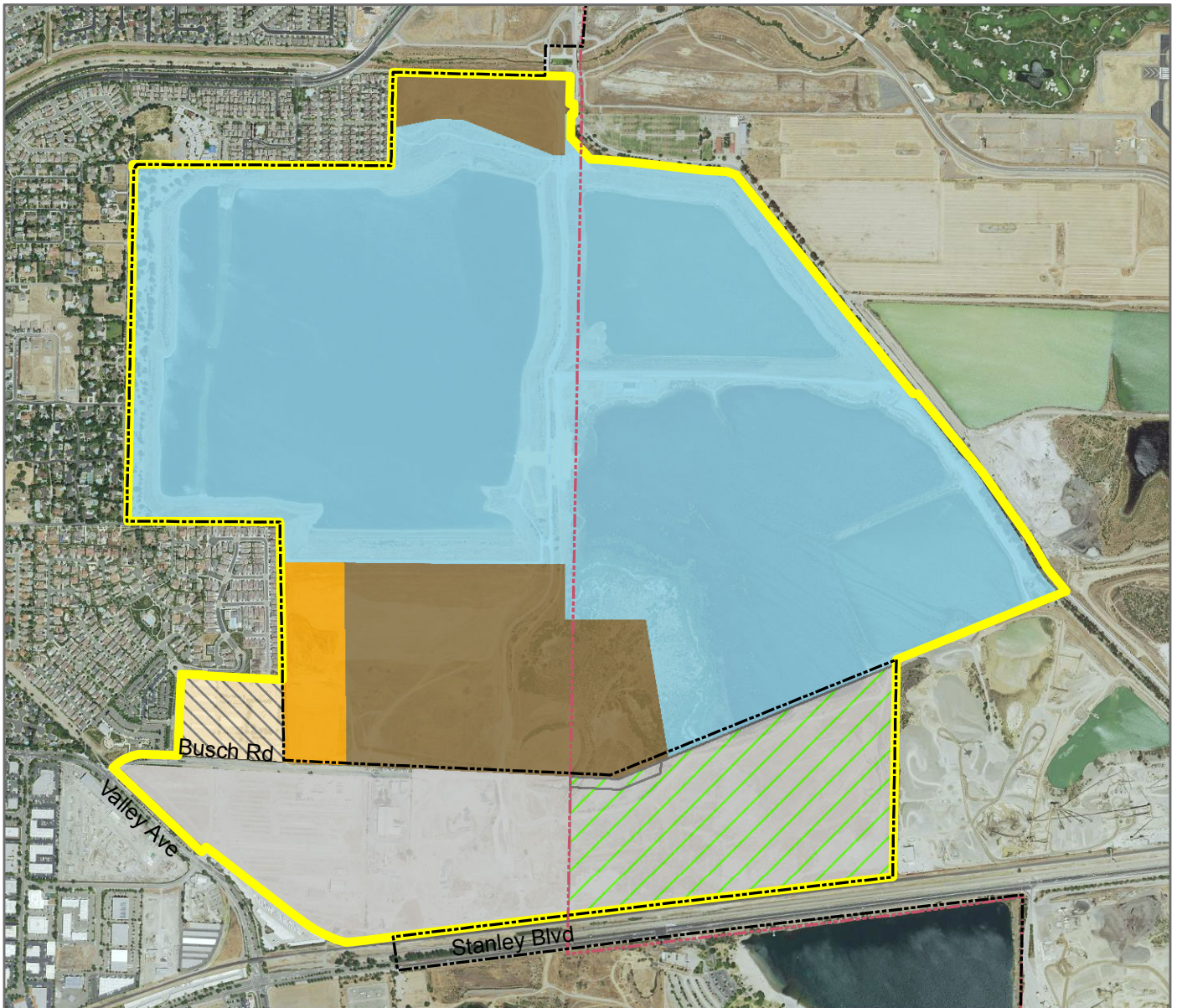
**Table 5-3: Comparison of Non-Residential Development Component**

Alternative	Square feet			Acres		
	Retail	Office	Industrial	Destination Use	Public Park	Public and Institutional
Base Plan (Proposed Project )	91,000	442,000	1,057,000	3	53	18
<b>Alternatives</b>						
No Project/No Build	—	—	—	—	—	—
No Project	City	—	1,681,000 <sup>1</sup>	—	—	18
	County	—	60,766 <sup>2</sup>	—	—	—
Alternative 1	91,000	442,000	1,057,000	3	53	18
Alternative 2	91,000	442,000	1,057,000	3	53	18
Alternative 3	91,000	442,000	1,057,000	3	53	18
Alternative 4	65,000 <sup>3</sup>	313,000	100,000	—	163	18
Alternative 5	65,000 <sup>3</sup>	313,000	100,000	—	163	18
Alternative 6	—	—	100,000	—	378 <sup>4</sup>	18
<p>Notes:</p> <p><sup>1</sup> As indicated by the City of Pleasanton Industrial zoning designation and a FAR of .30 (consistent with the General Plan holding capacity of 0.31) on 129 acres within city limits and Urban Growth Boundary.</p> <p><sup>2</sup> Agricultural processing uses. Based on Alameda County General Plan Large Parcel Agriculture land use designation’s allowable FAR of 0.01 on 139.5 acres.</p> <p><sup>3</sup> Retail located within Campus Office use area.</p> <p><sup>4</sup> Includes a mixture of Public Park and Open Space land uses.</p> <p>Source: City of Pleasanton, 2014.</p>						

**Table 5-4: Disposition of Other Key Components**

Alternative	Disposition of Key Components		
	El Charro Road/Stanley Boulevard Intersection	Relocate Pleasanton Transfer Station? (to SE corner of Plan Area)	Provision of City Open Space
Base Plan (Proposed Project)	At Shadow Cliff Recreation Area	<b>YES</b>	No
No Project/No Build	No connection	No	No
No Project	City	No Connection	No
	County		No
Alternative 1	At Shadow Cliff Recreation Area	<b>YES</b>	No
Alternative 2	At Shadow Cliff Recreation Area	<b>YES</b>	No
Alternative 3	At Shadow Cliff Recreation Area	<b>YES</b>	No
Alternative 4	Extension of El Charro Road North, but no connection to Stanley Boulevard	<b>YES</b>	YES
Alternative 5	No extension of El Charro Road north, no connection to Stanley Boulevard (Emergency vehicle access only)	<b>YES</b>	YES
Alternative 6	No extension of El Charro Road north, no connection to Stanley Boulevard (Emergency vehicle access only)	No	<b>YES (with Wildlife Habitat Banking)</b>

Source: City of Pleasanton, 2014; Gates and Associates, 2014.



















Source: City of Pleasanton, Alameda County



## Exhibit 5-2 No Project Alternative

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|---|---|
|  Single Family Residential - 4 DU/AC<br>Note: 4 DU/AC maximum, actual density may be less. |  Retail Overlay                        |
|  Single Family Residential - 8 DU/AC   |  Retail                                |
|  Single Family Residential - 11 DU/AC  |  Industrial                            |
|  Multifamily Residential - 23 DU/AC  |  Public & Institutional                |
|  Multifamily Residential - 30 DU/AC  |  Destination Use                       |
|  Zone 7 Open Space   |  Trail                                  |
|  Private Open Space  |  Potential Public School/<br>Park Site |
|  City Parks  |  Staging Area                          |
|  Campus Office   |   |

Note: Trails, staging areas, and vista locations are conceptual only. Those on Zone 7 property will be subject to Zone 7 review.

Source: City of Pleasanton, 2013



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## Exhibit 5-3 Alternative 1 1,430 Single-Family/Multi-Family Units

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- Single Family Residential - 4 DU/AC
- Single Family Residential - 8 DU/AC
- Zone 7 Open Space
- Private Open Space
- City Parks
- Campus Office
- Retail Overlay

- Retail
- Industrial
- Public & Institutional
- Destination Use
- Trail
- \* Potential Public School/  
Park Site
- S Staging Area

NOTE : Trails are conceptual only. Those on Zone 7 property will be subject to Zone 7 review and approval.

Source: City of Pleasanton, 2013



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## Exhibit 5-4 Alternative 2 1,000 Single-Family Units

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Source: City of Pleasanton, 2013



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## Exhibit 5-5 Alternative 3 800 Single-Family Units

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- |  |  |
|--|--|
|  Single Family Residential<br>(500 total units) |  Public & Institutional |
|  Zone 7 Open Space                              |  Industrial             |
|  Private Open Space                             |  Trail                   |
|  City Open Space                                |  Staging Area           |
|  City Parks                                     |  |
|  Campus Office                                  |  |
|  Retail Overlay                                 |  |

NOTE : Trails are conceptual only. Those on Zone 7 property will be subject to Zone 7 review and approval.

Source: City of Pleasanton, 2013



## 500 Single-Family Units with El Charro Road North Extension

Exhibit 5-6  
Alternative 4

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- |   |  |   |                          |
|---|--|---|--------------------------|
|  | Single Family Residential<br>(500 total units) |  | Public & Institutional   |
|  | Zone 7 Open Space                              |  | Industrial               |
|  | Private Open Space                             |   | Trail                    |
|  | City Open Space                                |   | Emergency Vehicle Access |
|  | City Parks                                     |  | Staging Area             |
|  | Campus Office                                  |   |                          |
|  | Retail Overlay                                 |   |                          |

NOTE : Trails are conceptual only. Those on Zone 7 property will be subject to Zone 7 review and approval.

Source: City of Pleasanton, 2013



## Exhibit 5-7 Alternative 5 500 Single-Family Units with No El Charro Road Extension

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- Zone 7 Open Space
- City Open Space
- City Parks
- Wildlife Habitat Banking
- Public & Institutional
- Industrial
- Trail
- Emergency Vehicle Access

NOTE : Trails are conceptual only. Those on Zone 7 property will be subject to Zone 7 review and approval.

Source: City of Pleasanton, 2013



## Exhibit 5-8 Alternative 6 Park

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Each of the eight alternatives is described and analyzed in the following sections.

## 5.4 - No Project/No Build Alternative

Under the No Project/No Build Alternative, the East Pleasanton Specific Plan would not be implemented and no additional development would occur within the Specific Plan boundaries. The remaining quarry reclamation efforts would be implemented and the Specific Plan Area would then be left in its current state for the foreseeable future. The existing City of Pleasanton Operations Service Center and Pleasanton Transfer Station and Recycling Center would remain in their current locations and maintain their current operations. The lakes would remain under existing Zone 7 operations and the reclaimed quarry lands would remain undeveloped. Under this alternative, it is not assumed that the El Charro Road extension is constructed.

### 5.4.1 - Impact Analysis

#### Aesthetics, Light, and Glare

This alternative would have no impacts to scenic vistas, visual character, light, or glare, because there would be no additional development. Therefore, this alternative would have fewer impacts on aesthetics, light, and glare than the Base Plan.

#### Air Quality

This alternative would not result in emissions related to demolition or construction of commercial or residential buildings. This alternative would also not result in operational emissions. No additional residential development would occur; therefore, no impacts associated with exposure of sensitive receptors to air pollutants generated by industrial uses and vehicle traffic would occur. This alternative would avoid the significant unavoidable impacts related to Clean Air Plan consistency and Cumulative Criteria Pollutants. In summary, this alternative would have fewer impacts on air quality than the Base Plan.

#### Biological Resources

This alternative would not have the potential to impact nesting birds and would not require mitigation similar to the Base Plan. Therefore, this alternative would have less impact on biological resources than the Base Plan.

#### Cultural Resources

This alternative would not have the potential to impact previously undiscovered buried cultural resources and would not require mitigation similar to the Base Plan. Therefore, this alternative would have fewer impacts on cultural resources than the Base Plan.

#### Geology, Soils, and Seismicity

This alternative would not have the potential to expose people or structures to seismic hazards, unstable soils, or expansive soils, nor would it create erosion during construction. Therefore, this alternative would have fewer impacts related to geology, soils, and seismicity than the Base Plan.

## **Greenhouse Gas Emissions**

This alternative would not result in emissions related to demolition or construction of commercial or residential buildings. This alternative would also not result in operational greenhouse gas emissions. Therefore, this alternative would have fewer impacts on greenhouse gases than the Base Plan.

## **Hazards and Hazardous Materials**

This alternative would not include any employees or residences and therefore would not expose any people or structures to existing contamination. Therefore, this alternative would have fewer impacts on hazards and hazardous materials compared with the Base Plan.

## **Hydrology and Water Quality**

This alternative would not result in additional development and, therefore, would not have the potential to create hydrology or water quality impacts. As such, this alternative would have fewer impacts on hydrology and water quality than the Base Plan.

## **Land Use and Planning**

Under this alternative, no additional development would occur within the Specific Plan Area for the foreseeable future. Because the General Plans for the City of Pleasanton and County of Alameda already designate the Specific Plan Area for various development types, this alternative would be inconsistent with the General Plans. Therefore, this alternative would have greater impacts on land use than those of the Base Plan.

## **Mineral Resources**

Similar to the Base Plan, implementation of this alternative would preclude any further mining activities within Specific Plan boundaries. Upon completion of the remaining reclamation efforts, the Specific Plan Area will no longer contain significant quantities of mineral resources and will no longer support mining operations. The Base Plan's impacts on Mineral Resources were found to be less than significant. Impacts of this alternative would be similar to the Base Plan.

## **Noise**

This alternative would not result in construction or operational activities that would increase existing noise levels. In addition, because this alternative would not generate any additional traffic trips, it would not contribute to noise levels on local roadways and would avoid the related significant unavoidable impact. Therefore, this alternative would have fewer impacts on noise than the Base Plan.

## **Population and Housing**

Under this alternative population and employment growth would not occur. As such, this alternative would have fewer impacts on population and housing than the Base Plan.

## Public Services and Recreation

Under this alternative, no increase in dwelling units or employment opportunities would occur, and, therefore, no increased public services or recreation facilities use would occur. Therefore, this alternative would have fewer impacts on public services and recreation than the Base Plan.

## Transportation/Traffic

This alternative would not generate any additional daily trips or peak-hour trips and no additional transportation facilities would be required or constructed. This alternative would also avoid the short-term significant unavoidable impact related to public transit parking. However, this alternative would not construct the transportation infrastructure identified for the Plan Area in the City's General Plan. The exclusion of El Charro Road construction from this alternative would alter the expected travel patterns assumed in the General Plan. At a minimum, these shifts in travel patterns would increase the number of vehicle trips on Valley Avenue and Santa Rita Road. It is estimated that approximately 30,000 vehicles per day would use El Charro Road. The elimination of the full connection of El Charro Road would reroute the 30,000 vehicles per day to Santa Rita Road, Valley Avenue, and other parallel arterials located in Livermore; this would likely cause a ripple effect that could impact adjacent intersections that were not included in this EIR analysis and create new impacts that were not contemplated in the City's General Plan. Mitigation would be required to reduce impacts to a level of less than significant and the list of intersections needing new traffic mitigations as a result of this alternative may exceed the intersection locations evaluated in this EIR. Additional analysis would be necessary to quantify the impacts resulting from this alternative along all arterial intersections within the City, including several intersections not analyzed in this EIR document. Therefore, this alternative would have greater impacts on transportation than the Base Plan.

## Utilities and Service Systems

Under this alternative, no increase in demand for potable water, or increased generation of wastewater and stormwater would occur. In addition, this alternative would not generate additional solid waste beyond what is already produced onsite. This alternative would not result in increased energy demand. As such, this alternative would have fewer impacts on utility systems compared with the Base Plan.

### 5.4.2 - Conclusion

The No Project/No Build Alternative would not result in additional development and would thus result in fewer impacts than the Base Plan in all impact categories except land use and transportation, and similar impacts to mineral resources. Greater impacts to land use would occur because it would preclude development, which would be inconsistent with the identified land uses included in the City and County General Plans. This alternative would not meet any of project's capital investment, economic growth, transportation, or development-related objectives.

## 5.5 - No Project Alternative

Under the No Project Alternative, the Specific Plan Area would be developed according to the existing City of Pleasanton zoning designations in incorporated areas and Alameda County land use designations in unincorporated areas (Exhibit 5-2).

### Incorporated Area

Parcels within the incorporated Specific Plan Area and within the Urban Growth Boundary (UGB) would be developed pursuant to the Industrial zoning designation identified in the City of Pleasanton Zoning Map and Ordinance, allowing for 1.68 million square feet of industrial use. The 1.68 million square feet is based on approximately 129 acres of land zoned “Industrial” that is within the UGB and within city limits, and a FAR of 0.30, which is consistent with the General Plan holding capacity of 0.31. Areas within the City but outside the UGB would remain undeveloped and maintained as open space.

### Unincorporated Area

Unincorporated areas located outside of the Pleasanton city limits would remain subject to the Alameda County General Plan Land Use Map, which designates the unincorporated portion of the Specific Plan Area as a mixture of Water Management, Medium Density Residential, and Large Parcel Agriculture. (Note that two of the three parcels designated as Large Parcel Agriculture by the County do not meet the minimum 100-acre size.) General development allowed by these land use designations are as follows:

- Large Parcel Agriculture (one residence per parcel and a maximum FAR of .01 for compatible agricultural use)
- Medium Density Residential (maximum of 8 dwelling units per acre)
- Water Management (no development)

Note that parcel lines and County land use designation boundaries are not consistent within the unincorporated Specific Plan Area. Only a portion of the Large Parcel Agriculture and Medium Density Residential designated lands could be developed, because these County designations cross over into Zone 7 owned lands used for water resource management, which are not developable. Only 20.4 acres of the northernmost County-designated Large Parcel Agriculture parcel are outside of Zone 7 lands. Similarly, only 119.1 acres of the southern Large Parcel Agricultural designated lands (66.5 plus 52.6 acres on two separate parcels) and only 25.4 acres of the Medium Density Residential designation are outside of Zone 7 lands. As such, the developable area for Large Parcel Agriculture is 139.5 acres and Medium Density Residential is 25.4 acres. Therefore, the County land use designations were applied only to the unincorporated parcels located outside of Zone 7 lands.

Based on the County’s land use designations and the above acreages, the following could be developed in the unincorporated area under the No Project Alternative:

- 206 residences (203 in the Medium Density Residential designated area and one on each of the three non-Zone 7 parcels within the County’s Large Parcel Agriculture designated areas).
- 60,766 square feet of industrial use (139.5 acres at 0.01 FAR)

## No Project Alternative Summary

In total, this alternative would result in 206 residential units and 1.74 million square feet of non-residential development. As such, compared with the Base Plan, this alternative would result in 1,094 fewer residential units and 105,766 additional square feet of non-residential development. This alternative would keep the Operations Service Center and Pleasanton Transfer Station and Recycling Center in their current locations. Overall, this alternative would result in 4.14 million fewer square feet of development compared with the Base Plan, and would leave the portion of industrially zoned land in the southeast corner of the Specific Plan Area, outside the UGB, undeveloped.

### 5.5.1 - Impact Analysis

#### Aesthetics, Light, and Glare

This alternative would result in an overall reduction in development compared with the Base Plan. Unlike the Base Plan, this alternative would not be required to implement Specific Plan design guidelines. However, all development under this alternative would be required to comply with city and county regulations regarding lighting. Unlike the Base Plan, the portion of industrially zoned land in the southeast corner of the Specific Plan area, outside the UGB, would remain undeveloped. In addition, the FAR for development in unincorporated areas is less than the Base Plan, and, therefore, building intensity would be reduced. As such, this alternative’s overall decrease in development and footprint would result in fewer aesthetics, light, and glare impacts than the Base Plan.

#### Air Quality

This alternative would result in overall less construction activity, less development square footage, and fewer daily vehicle trips, which have a corresponding reduction in the severity of construction and operational air pollutant emissions. Similar to the Base Plan, mitigation would be required to reduce impacts to less than significant, and significant and unavoidable impacts related to Clean Air Plan consistency and cumulative criteria pollutants would still occur. However, this alternative would reduce the related air quality benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. Overall emissions would be less than the project. As such, this alternative would have fewer air quality impacts than the Base Plan.

#### Biological Resources

This alternative would result in urban development in the southwest of Cope Lake basin where sensitive habitats and special-status species have the potential to occur, whereas the Base Plan maintains this land for park lands to avoid disturbance. Therefore, this alternative could result in a greater level of disturbance to sensitive habitats and special-status species located within the

southwestern Cope Lake basin. The implementation of mitigation would reduce potential impacts to less than significant. However, this alternative would have impacts on biological resources that are greater than the Base Plan.

### **Cultural Resources**

This alternative would exclude development in the southeastern corner of the Specific Plan Area outside the UGB boundary, and therefore would have a smaller footprint of disturbance and development than the Base Plan. Because of the reduced footprint of disturbance, this alternative would have a reduced potential to disturb previously undiscovered cultural resources.

### **Geology, Soils, and Seismicity**

This alternative would exclude development in the southeastern corner of the Specific Plan Area outside the UGB boundary and therefore would have a smaller footprint of disturbance and development than the Base Plan. Because of the reduced footprint of disturbance, this alternative would have a reduced potential to result in exposure of future development to seismic hazards, erosion, unstable soils, or expansive soils.

### **Greenhouse Gas Emissions**

This alternative would result in less construction and operation emissions compared with the Base Plan. This alternative would result in fewer benefits associated with dense mixed-use development, such as internal trip capture and alternative transit use compared with the Base Plan. However, overall greenhouse gas emissions would be less than the project. Therefore, this alternative would have fewer greenhouse gas emissions impacts than the Base Plan.

### **Hazards and Hazardous Materials**

This alternative would exclude development in the southeastern corner of the Specific Plan Area outside the UGB boundary and therefore would have a smaller footprint of disturbance and development than the Base Plan. Because of the reduced footprint of disturbance, this alternative would not result in disturbance of potential hazardous sites on the southeast corner of the Specific Plan Area and, therefore, would result in a reduced risk of exposure of future development to contamination.

### **Hydrology and Water Quality**

Under this alternative, less impervious surface area would be constructed within the Specific Plan Area than under the Base Plan. Similar to the Base Plan, the potential to impact surface water quality and alter drainage patterns would require mitigation, which would reduce impacts to less than significant. Because the extent of impervious surfaces and need for mitigation would presumably be less for this alternative, it would have fewer impacts on hydrology and water quality than the Base Plan.

### **Land Use and Planning**

Under this alternative, the Specific Plan would not be implemented and uniform direction on how to apply City of Pleasanton land uses and zoning within the incorporated portion of the Plan Area would



not be provided. This alternative is inconsistent with the General Plan, which requires the implementation of an East Pleasanton Specific Plan. This alternative would also conflict with the General Plan's identified extension of El Charro Road to Stanley Boulevard as a future roadway improvement both in text and in circulation maps. The General Plan specifically states that extension of El Charro Road is a "significant and necessary part of Pleasanton's local circulation system." Therefore, this alternative would have greater impacts on land use and planning than the Base Plan.

### **Mineral Resources**

Similar to the Base Plan, implementation of this alternative would preclude any further mining activities within Specific Plan boundaries. The Base Plan's impacts on mineral resources were found to be less than significant and did not require mitigation; therefore, this alternative would also have a less than significant impact on mineral resources, and impacts would be similar to the Base Plan.

### **Noise**

Project development within the Plan Area would be required to implement mitigation similar to the Base Plan to ensure short-term noise impacts are less than significant. However, the decrease in overall development would incrementally decrease duration of construction noise. Because this alternative would result in fewer daily trips, it would have a reduced contribution to noise level on local roadways compared with the Base Plan. Overall, this alternative would result in fewer impacts on noise than the Base Plan.

### **Population and Housing**

This alternative would result in fewer residential units and more non-residential development. This alternative would include an estimated 659 residents (3,501 fewer than the Base Plan) and 3,056 employees (810 fewer than the Base Plan). While employment and population growth created by this alternative would be less than the Base Plan, it is still within the General Plan assumptions for buildout of the Specific Plan Area and would already be accounted for in local and regional forecasts. This alternative would meet Regional Housing Needs Allocations for the 2015–2023 period. However, because of the overall reduction in population, this alternative would have fewer impacts on population and housing than the Base Plan.

### **Public Services and Recreation**

This alternative would result in 4.14 million fewer square feet of development than the Base Plan. Because this alternative would result in an overall reduced development intensity and would generate fewer employment opportunities than the Base Plan, it would result in correspondingly fewer impacts on public services through increased calls for service and public facility usage. Similar to the Base Plan, development under this alternative would be required to implement General Plan policies requiring fire hazard mitigations and pay development impact fees to ensure impacts are less than significant. Overall, this alternative would have fewer impacts on public services and recreation than the Base Plan.

## Transportation/Traffic

This alternative would result in 14,100 daily trips compared with the Base Plan's 29,390 daily trips, including fewer trips during the morning and afternoon peak hours. Intersection operation impacts would still occur and mitigation would be required to reduce impacts to a level of less than significant. As a result of the reduced number of dwelling units under this alternative, the impact to parking at the East Pleasanton BART station would be reduced but would still be significant and unavoidable in the short term. However, this alternative would not construct the transportation infrastructure identified for the Plan Area in the City's General Plan. The exclusion of El Charro Road construction from this alternative would alter the expected travel patterns assumed in the General Plan. At a minimum these shifts in travel patterns would increase the number of vehicle trips on Valley Avenue and Santa Rita Road. It is estimated that approximately 30,000 vehicles per day would use El Charro Road. The elimination of the full connection of El Charro Road would reroute the 30,000 vehicles per day to Santa Rita Road, Valley Avenue and other parallel arterials located in Livermore; this would likely cause a ripple effect that could impact adjacent intersections that were not included in this EIR analysis and create new impacts that were not contemplated in the City's General Plan. Mitigation would be required to reduce impacts to a level of less than significant and the list of intersections needing new traffic mitigations as a result of this alternative may exceed the intersection locations evaluated in this EIR. Additional analysis would be necessary to quantify the impacts resulting from this alternative along all arterial intersections within the City including several intersections not analyzed in this EIR document. As such, this alternative would have greater impacts on transportation than the Base Plan.

## Utilities and Service Systems

The reduced development intensity of this alternative would have correspondingly reduced demand for potable water and wastewater disposal and treatment relative to the Base Plan. This alternative would result in less construction and operational waste but, similar to the Base Plan, would be required to implement waste reduction measures. This alternative would have a reduced demand for energy, but would not be guided by Specific Plan policies to implement energy conservation and alternative energy strategies. Overall, this alternative would have fewer impacts on utility systems than the Base Plan.

## 5.5.2 - Conclusion

The No Project Alternative would result in fewer impacts than the Base Plan in most categories, with the exception of greater impacts to biological resources and land use, and similar impacts related to mineral resources.

The No Project Alternative would meet the project objectives relating to economic growth and redevelopment of the Plan Area, but at a lower level of certainty because no specific plan would guide and coordinate the development. The No Project Alternative would not meet the objectives of objectives of minimizing adverse impacts to sensitive uses, or the use of a comprehensive planning document.

## 5.6 - Alternative 1 – 1,430 Single-Family/Multi-Family Units

Alternative 1 (Exhibit 5-3) includes 1,430 dwelling units (130 more than those of the Base Plan). The dwelling units would be a mixture of single- and multi-family residences. While this alternative would result in more dwelling units than the Base Plan, it would result in slightly fewer residents as a result of the reduced population multiplier for multi-family housing.<sup>1</sup> Similar to the Base Plan, 1.6 million square feet of retail, office, industrial, destination, public, and institutional land uses would be developed. All land uses in this alternative are located similarly to the Base Plan, and the extent of disturbance for site preparation and construction would be similar. However, the ultimate development footprint (square footage) would be slightly reduced. The only change would be increased residential densities to allow for the additional dwelling units.

Similar to the Base Plan, this alternative includes the possible future relocation of the Pleasanton Transfer Station and Recycling Center. Overall, this alternative would result in 899,000 fewer square feet of development than the Base Plan and a reduced population of approximately 84 people.

### 5.6.1 - Impact Analysis

#### Aesthetics, Light, and Glare

This alternative would result in an overall reduction in square footage compared with the Base Plan. Non-residential square footage would be the same; however, even though there would be more housing, the units would be smaller, resulting in an overall decrease in residential square footage as compared to the Base Plan (see Table 5-2). Similar to the Base Plan, this alternative would be required to implement Specific Plan design guidelines and comply with City of Pleasanton regulations regarding lighting. Overall, this alternative's reduced square footage and associated lighting would result in fewer impacts on light and glare than the Base Plan.

#### Air Quality

This alternative would result in less overall construction activity (as a result of the reduced overall square footage) and fewer daily vehicle trips than the Base Plan (as a result of multi-family housing), which would result in corresponding reductions in the severity of construction and operational air pollutant emissions. This alternative would still implement mitigation measures similar to the Base Plan and the decrease in vehicle trips would decrease the severity of air quality impacts. However, the impacts related to Clean Air Plan consistency and cumulative criteria pollutants would remain significant and unavoidable. This alternative would increase the overall density and air quality benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. As such, this alternative would be supportive of the regional goals of smart-growth development. Therefore, despite the increased number of residential units, fewer overall regional impacts on air quality would occur compared with the Base Plan.

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<sup>1</sup> Population multipliers for all alternatives were based upon the average household size population assumptions outlined in the Fiscal Impact Analysis of the Eastern Pleasanton Specific Plan Draft Memorandum by Economic & Planning Systems, dated July 25, 2013.

## **Biological Resources**

All land uses in this alternative are located similarly to the Base Plan, and the extent of disturbance for site preparation and construction would be similar, although the ultimate development footprint (square footage) would be slightly reduced. As such, this alternative would have the potential to impact special-status plant species, California red-legged frog, California tiger salamander, burrowing owl, nesting bird species, state and federal jurisdictional water features, and protected trees. As with the Base Plan, the implementation of mitigation would reduce potential impacts to less than significant. Therefore, this alternative would have impacts on biological resources similar to the Base Plan.

## **Cultural Resources**

All land uses in this alternative are located similarly to the Base Plan, and the extent of disturbance for site preparation and construction would be similar, although the ultimate development footprint (square footage) would be slightly reduced. As such, this alternative would have the same potential to impact previously undiscovered buried cultural resources and would require the implementation of mitigation to reduce impacts to less than significant. Therefore, this alternative would have impacts on cultural resources similar to the Base Plan.

## **Geology, Soils, and Seismicity**

All land uses in this alternative are located similarly to the Base Plan, and the extent of disturbance for site preparation and construction would be similar, although the ultimate development footprint (square footage) would be slightly reduced. As such, this alternative would result in the same impacts related to seismic hazards, erosion, unstable soils, or expansive soils as the Base Plan. Therefore, this alternative would have impacts on geology, soils, and seismicity similar to the Base Plan.

## **Greenhouse Gas Emissions**

This alternative would result in slightly less construction activity as a result of the reduced square footage, which would result in reduced construction emissions. This alternative would also result in reduced daily vehicle trips, which would have a corresponding reduction in operational greenhouse gas emissions. Similar to the Base Plan, this alternative would implement mitigation to reduce potential greenhouse gas emissions from industrial uses to less than significant. In addition, this alternative would increase the greenhouse gas benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. As such, this alternative would be more supportive of the regional goals of smart-growth development. In summary, despite the increased number of residential units, the regional overall impact on greenhouse gases would be less than the Base Plan.

## **Hazards and Hazardous Materials**

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. As such, this alternative would have the same impacts related to potential exposure to existing contamination. Similar to the Base Plan, the implementation of mitigation would reduce impacts to a level of less than significant. Therefore,

this alternative would have potential hazards and hazardous materials impacts similar to the Base Plan.

### **Hydrology and Water Quality**

While the extent of site disturbance for this alternative would be the same as the Base Plan, less impervious surface area would be constructed as a result of the reduced overall square footage, resulting in a reduced potential to impact surface water quality and alter drainage patterns. Nonetheless, implementation of mitigation to reduce impacts to a level of less than significant would still be required. This alternative would generate fewer hydrology and water quality impacts than the Base Plan.

### **Land Use and Planning**

Similar to the Base Plan, this alternative would include implementation of a Specific Plan for the project site. Also similar to the Base Plan, buildout of the Specific Plan Area would be required to comply with applicable General Plan, Zoning Ordinance, and ALUC policies. Therefore, this alternative would result in impacts on land use and planning similar to the Base Plan.

### **Mineral Resources**

Similar to the Base Plan, implementation of this alternative would preclude any further mining activities within Specific Plan boundaries. Upon completion of existing reclamation efforts, the Specific Plan Area will no longer contain significant quantities of mineral resources and will no longer support mining operations. The Base Plan's impacts on Mineral Resources were found to be less than significant. Impacts of this alternative would be similar to the Base Plan.

### **Noise**

This alternative would be required to implement mitigation similar to the Base Plan to ensure that short-term noise impacts are less than significant. The overall reduction in square footage would incrementally reduce the duration of construction noise. Because this alternative would generate less daily trips than the Base Plan, it would have a reduced contribution to noise levels on local roadways, but the related significant unavoidable impact would still occur. As such, this alternative would result in fewer impacts on noise than the Base Plan.

### **Population and Housing**

The Base Plan's population and employment growth would not exceed forecasted population growth assumptions and are consistent with growth contemplated by the General Plan. This alternative would result in more dwelling units but slightly fewer residents as a result of multi-family housing, and would also not exceed forecasted population growth assumptions. In addition, similar to the Base Plan, the employment growth created by this alternative would be within the assumptions of the General Plan, and would already be accounted for in local and regional forecasts. Because of the reduced population, this alternative would have fewer impacts on population than the Base Plan.

## Public Services and Recreation

While this alternative would result in more housing units than the Base Plan, it would result in a slight reduction in population increase as a result of multi-family units and therefore would result in correspondingly reduced impacts on public services and recreation through reduced calls for service and public facility usage. Similar to the Base Plan, development under this alternative would be required to implement General Plan policies requiring fire hazard mitigations and pay development impact fees to ensure impacts are less than significant. Overall, this alternative would have fewer impacts on public services and recreation than the Base Plan.

## Transportation/Traffic

This alternative would result in 29,110 daily trips, slightly fewer than the Base Plan's 29,390 daily trips, including slightly fewer trips during both the morning and afternoon peak hours. While peak-hour trips would be reduced, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. While dwelling units would be increased, actual population would slightly decrease under this alternative. Therefore, the impact to parking at the East Pleasanton BART station would be decreased and but would still be significant and unavoidable in the short term. Overall, because of the reduced trip generation and population numbers, this alternative would have fewer impacts on transportation than the Base Plan.

## Utilities and Service Systems

The overall slightly reduced population of this alternative would have correspondingly reduced demand for potable water and wastewater disposal and treatment relative to the Base Plan. This alternative would result in less construction and operational waste and, similar to the Base Plan, would be required to implement waste reduction measures. This alternative would have a reduced demand for energy, but would also be guided by Specific Plan policies to implement energy conservation and alternative energy strategies that would reduce potential impacts to a level of less than significant. Therefore, this alternative would have fewer impacts on utility systems than the Base Plan.

## 5.6.2 - Conclusion

Because of the slight reduction in building square footage and population, Alternative 1 would result in fewer impacts than the Base Plan related to aesthetics; air quality, greenhouse gas emissions, hydrology, noise, population and housing, public services and recreation, transportation and traffic, and utilities and service systems. Similar impacts would result related to biological resources; cultural resources; geology, soils, and seismicity; hazards and hazardous materials; land use and planning; and mineral resources.

This alternative would satisfy the project objectives related to capital investment, transportation, and redevelopment objectives.

## 5.7 - Alternative 2 – 1,000 Single-Family Units

Alternative 2 (Exhibit 5-4) includes 1,000 dwelling units (300 fewer than the Base Plan). All dwelling units would be single-family. Similar to the Base Plan, 1.6 million square feet of retail, office, industrial, destination, public, and institutional land uses would be developed. All land uses in this alternative are located similarly to the Base Plan. The only change would be reduced residential densities to allow for the reduction in dwelling units.

Similar to the Base Plan, this alternative includes the possible future relocation of the Pleasanton Transfer Station and Recycling Center. Overall, this alternative would result in 757,000 fewer square feet of development than the Base Plan.

### 5.7.1 - Impact Analysis

#### Aesthetics, Light, and Glare

This alternative would result in an overall reduction in development compared with the Base Plan. Similar to the Base Plan, this alternative would be required to implement Specific Plan design guidelines and comply with City of Pleasanton regulations regarding lighting. Overall, this alternative's reduced development and lighting would result in fewer impacts on light and glare than the Base Plan.

#### Air Quality

This alternative would result in overall less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational air pollutant emissions. Although this alternative would still implement mitigation measures similar to the Base Plan, the reduction in development potential and vehicle trips would reduce the severity of air quality impacts. In addition, the impacts related to Clean Air Plan consistency and cumulative criteria pollutants would also be reduced but would remain significant and unavoidable. This alternative would reduce the overall density and air quality benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. However, because this alternative would have less generation of air pollutant emissions, the overall regional impact on air quality would be less than the Base Plan.

#### Biological Resources

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. As such, this alternative would have the potential to impact special-status plant species, California red-legged frog, California tiger salamander, burrowing owl, nesting bird species, state and federal jurisdictional water features, and protected trees. As with the Base Plan, the implementation of mitigation would reduce potential impacts to less than significant. Therefore, this alternative would have impacts on biological resources similar to the Base Plan.

## **Cultural Resources**

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. As such, this alternative would have the same potential to impact previously undiscovered buried cultural resources and would require the implementation of mitigation to reduce impacts to less than significant. Therefore, this alternative would have impacts on cultural resources similar to the Base Plan.

## **Geology, Soils, and Seismicity**

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. Therefore, this alternative would have impacts on geology, soils, and seismicity similar to the Base Plan.

## **Greenhouse Gas Emissions**

This alternative would result in less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational greenhouse gas emissions. Similar to the Base Plan, this alternative would implement mitigation to reduce greenhouse gas impacts from industrial uses to less than significant. However, this alternative would reduce the greenhouse gas benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. In summary, this alternative would have fewer greenhouse gas emissions than the Base Plan; the regional overall impact on greenhouse gases would be fewer than the Base Plan.

## **Hazards and Hazardous Materials**

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. As such, this alternative would have the same impacts related to potential exposure to existing contamination but to a lesser extent, due to reduced dwelling units and related occupancy. Similar to the Base Plan, the implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have fewer hazards and hazardous materials impacts than the Base Plan.

## **Hydrology and Water Quality**

While the extent of this alternative's development footprint would be the same as the Base Plan, less impervious surface area would be constructed, resulting in a reduced potential to impact surface water quality and alter drainage patterns. Nonetheless, implementation of mitigation to reduce impacts to a level of less than significant would still be required. This alternative would generate fewer hydrology and water quality impacts compared with the Base Plan.

## **Land Use and Planning**

Similar to the Base Plan, this alternative would include implementation of a Specific Plan for the project site. Also similar to the Base Plan, buildout of the Specific Plan Area would be required to comply with applicable General Plan, Zoning Ordinance, and ALUC policies. Therefore, this alternative would result in impacts on land use and planning similar to the Base Plan.



## Mineral Resources

Similar to the Base Plan, implementation of this alternative would preclude any further mining activities within Specific Plan boundaries. Upon completion of existing reclamation efforts, the Specific Plan Area will no longer contain significant quantities of mineral resources and will no longer support mining operations. The Base Plan's impacts on Mineral Resources were found to be less than significant. Impacts of this alternative would be similar to the Base Plan.

## Noise

Construction activities would be required to implement mitigation similar to the Base Plan to ensure short-term noise impacts are less than significant. However, the overall reduction in development would incrementally reduce the duration of construction noise. Because this alternative would generate fewer daily trips, it would have a reduced contribution to noise levels on local roadways, but the related significant unavoidable impact would still occur. Overall, this alternative would result in fewer impacts on noise than the Base Plan.

## Population and Housing

The Base Plan's population and employment growth would not exceed forecasted population growth assumptions and are consistent with growth contemplated by the General Plan. Because this alternative would result in fewer dwelling units and, therefore, fewer residents, it also would not exceed forecasted population growth assumptions. This alternative would meet Regional Housing Needs Allocations for the 2014–2022 period. In addition, the employment growth created by this alternative would be within the assumptions of the General Plan, and would already be accounted for in local and regional forecasts. Because of the reduced population, this alternative would have fewer impacts on population and housing than the Base Plan.

## Public Services and Recreation

Because this alternative would result in an overall reduced development intensity and generate fewer residences than the Base Plan, it would result in correspondingly reduced impacts on public services and recreation through reduced calls for service and public facility usage. Similar to the Base Plan, development under this alternative would be required to implement General Plan policies requiring fire hazard mitigations and pay development impact fees to ensure impacts are less than significant. Overall, this alternative would have fewer impacts on public services and recreation than the Base Plan.

## Transportation/Traffic

This alternative would result in 27,240 daily trips compared with the Base Plan's 29,390 daily trips, including fewer trips during the morning and afternoon peak hours. Even with the reduced trip generation, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. As a result of the reduced dwelling units under this alternative, the impact to parking at the East Pleasanton BART station would be reduced but would still be significant and unavoidable in the short term. Overall, this alternative would have fewer impacts on transportation than the Base Plan.

## Utilities and Service Systems

The reduced development square footage and population of this alternative would have correspondingly reduced demand for potable water and wastewater disposal and treatment relative to the Base Plan. This alternative would result in less construction and operational waste and, similar to the Base Plan, would be required to implement waste reduction measures. This alternative would have a reduced demand for energy, but it would also be guided by Specific Plan policies to implement energy conservation and alternative energy strategies that would reduce potential impacts to a level of less than significant. Therefore, this alternative would have fewer impacts on utility systems than the Base Plan.

### 5.7.2 - Conclusion

Alternative 2 would result in fewer impacts than the Base Plan related to aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, hydrology, noise, population and housing, public services and recreation, transportation and traffic, and utilities and service systems. Similar impacts would result related to biological resources; cultural resources; geology, soils, and seismicity; land use; and mineral resources.

This alternative would satisfy the project objectives related to capital investment, transportation, minimizing impacts to sensitive uses, and redevelopment objectives. However, residential-related development would be accomplished to a lesser extent than the Base Plan.

## 5.8 - Alternative 3 – 800 Single-Family Units

Alternative 3 (Exhibit 5-5) includes 800 dwelling units (500 fewer than the Base Plan). All dwelling units would be single-family. Similar to the Base Plan, 1.6 million square feet of retail, office, industrial, destination, public, and institutional land uses would be developed. All land uses in this alternative are located similarly to the Base Plan. The only change would be reduced residential densities to allow for the reduction in dwelling units.

Similar to the Base Plan, this alternative includes the possible future relocation of the Pleasanton Transfer Station and Recycling Center. Overall, this alternative would result in 873,000 fewer square feet of development than the Base Plan.

### 5.8.1 - Impact Analysis

#### Aesthetics, Light, and Glare

This alternative would result in an overall reduction in development compared with the Base Plan. Similar to the Base Plan, this alternative would be required to implement Specific Plan design guidelines and comply with City of Pleasanton regulations regarding lighting. Overall, this alternative's reduced development and associated lighting would result in fewer light and glare impacts than the Base Plan.

## **Air Quality**

This alternative would result in overall less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational air pollutant emissions. Although this alternative would still implement mitigation measures similar to the Base Plan, the reduction in development potential and vehicle trips would reduce the severity of air quality impacts. In addition, the impacts related to Clean Air Plan consistency and cumulative criteria pollutants would also be reduced but would remain significant and unavoidable. This alternative would reduce the overall density and air quality benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. However, overall emissions would be less than the project. Therefore, this alternative would have fewer impacts on air quality than the Base Plan.

## **Biological Resources**

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. As such, this alternative would have the potential to impact special-status plant species, California red-legged frog, California tiger salamander, burrowing owl, nesting bird species, state and federal jurisdictional water features, and protected trees. As with the Base Plan, the implementation of mitigation would reduce potential impacts to less than significant. Therefore, this alternative would have impacts on biological resources similar to the Base Plan.

## **Cultural Resources**

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. As such, this alternative would have the same potential to impact previously undiscovered buried cultural resources and would require the implementation of mitigation to reduce impacts to less than significant. Therefore, this alternative would have impacts on cultural resources similar to the Base Plan.

## **Geology, Soils, and Seismicity**

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. As such, this alternative would result in the same impacts related to seismic hazards, erosion, unstable soils, or expansive soils as the Base Plan. Therefore, this alternative would have impacts on geology, soils, and seismicity similar to the Base Plan.

## **Greenhouse Gas Emissions**

This alternative would result in less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational greenhouse gas emissions. Similar to the Base Plan, this alternative would implement mitigation to reduce greenhouse gas impacts from the industrial land uses to less than significant. However, this alternative would reduce the greenhouse gas benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. In summary, this alternative would

have fewer greenhouse gas emissions than the Base Plan, the regional overall impact on greenhouse gases would be fewer than the Base Plan.

### **Hazards and Hazardous Materials**

The extent of this alternative's development footprint would be the same as the Base Plan and would therefore require a similar level of ground disturbance. As such, this alternative would have the same impacts related to potential exposure to existing contamination but to a lesser extent, due to the reduction in dwelling units and related occupancy reduction. Similar to the Base Plan, the implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have fewer hazards and hazardous materials impacts than the Base Plan.

### **Hydrology and Water Quality**

While the extent of this alternative's development footprint would be the same as the Base Plan, less impervious surface area would be constructed, resulting in a reduced potential to impact surface water quality and alter drainage patterns. Nonetheless, implementation of mitigation to reduce impacts to a level of less than significant would still be required. This alternative would generate fewer hydrology and water quality impacts compared with the Base Plan.

### **Land Use and Planning**

Similar to the Base Plan, this alternative would include implementation of a Specific Plan for the project site. Also similar to the Base Plan, buildout of the Specific Plan Area would be required to comply with applicable General Plan, Zoning Ordinance, and ALUC policies. Therefore, this alternative would result in impacts on land use and planning similar to the Base Plan.

### **Mineral Resources**

Similar to the Base Plan, implementation of this alternative would preclude any further mining activities within Specific Plan boundaries. Upon completion of existing reclamation efforts, the Specific Plan Area will no longer contain significant quantities of mineral resources and will no longer support mining operations. The Base Plan's impacts on Mineral Resources were found to be less than significant. Impacts of this alternative would be similar to the Base Plan.

### **Noise**

Construction activities would be required to implement mitigation similar to the Base Plan to ensure short-term noise impacts are less than significant. However, the overall reduction in development would incrementally reduce duration of construction noise. Because this alternative would generate fewer daily trips, it would have a reduced contribution to noise levels on local roadways, but the related significant unavoidable impact would still occur. Overall, this alternative would result in fewer impacts on noise than the Base Plan.

### **Population and Housing**

The Base Plan's population and employment growth would not exceed forecasted population growth assumptions and are consistent with growth contemplated by the General Plan. Because this alternative would result in fewer dwelling units and, therefore, fewer residents, it also would not

exceed forecasted population growth assumptions. This alternative would meet Regional Housing Needs Allocations for the 2014–2022 period. In addition, the employment growth created by this alternative would be within the assumptions of the General Plan and would already be accounted for in local and regional forecasts. Because of the reduced population, this alternative would have fewer impacts on population and housing than the Base Plan.

### **Public Services and Recreation**

Because this alternative would result in an overall reduced development intensity and generate fewer residences than the Base Plan, it would result in correspondingly reduced impacts on public services and recreation through reduced calls for service and public facility usage. Similar to the Base Plan, development under this alternative would be required to implement General Plan policies requiring fire hazard mitigations and pay development impact fees to ensure impacts are less than significant. Overall, this alternative would have fewer impacts on public services and recreation than the Base Plan.

### **Transportation/Traffic**

This alternative would result in 25,810 daily trips compared with the Base Plan’s 29,390 daily trips, including fewer trips during the morning and afternoon peak hours. While peak-hour trips would be reduced, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. As a result of the reduced residences and related reduction in population under this alternative, the impact to parking at the East Pleasanton BART station would be reduced but would still be significant and unavoidable in the short term. Therefore, this alternative would have fewer impacts on transportation than the Base Plan.

### **Utilities and Service Systems**

The reduced development square footage and population of this alternative would have correspondingly reduced demand for potable water and wastewater disposal and treatment relative to the Base Plan. This alternative would result in less construction and operational waste and, similar to the Base Plan, would be required to implement waste reduction measures. This alternative would have a reduced demand for energy, but would also be guided by Specific Plan policies to implement energy conservation and alternative energy strategies that would reduce potential impacts to a level of less than significant. Therefore, this alternative would have fewer impacts on utility systems than the Base Plan.

## **5.8.2 - Conclusion**

Alternative 3 would result in fewer impacts than the Base Plan in most categories, with the exception of similar impacts related to biological resources; cultural resources; geology, soils, and seismicity; land use and planning; and mineral resources.

This alternative would satisfy the project objectives related to capital investment, transportation, minimizing impacts to sensitive uses, and redevelopment objectives. However, residential-related development would be accomplished to a lesser extent than the Base Plan.

## 5.9 - Alternative 4 – 500 Single-Family Units with El Charro Road North Extension

Under this alternative (Exhibit 5-6), 500 single-family dwelling units would be constructed in the southwest corner of the Specific Plan Area. Unlike the Base Plan, commercial retail uses would be developed only in the northern Campus Office/Retail Overlay area. The Campus Office area south of Lake I and the Retail area south of the Busch Road and El Charro Road intersection would not be developed, nor would the Destination Use area. Industrial development would be limited to the relocation of the Pleasanton Transfer Station and Recycling Center to the east, north of Shadow Cliff Recreational Area. Public open space and park lands would replace the Industrial and southern Campus Office land uses in the proposed plan, resulting in a total of 163 acres of open space and park lands (110 more than the Base Plan).

Unlike the Base Plan, El Charro road would not be extended to Stanley Boulevard. Instead, El Charro Road would be extended from the Stoneridge Drive and Jack London Boulevard Intersection into the Specific Plan Area to Busch Road. The alignment of Busch Road would also be altered to accommodate this change.

Overall, this alternative would result in 3.53 million fewer square feet of development than the Base Plan.

### 5.9.1 - Impact Analysis

#### Aesthetics, Light, and Glare

This alternative would result in an overall reduction in development compared with the Base Plan. Similar to the Base Plan, this alternative would be required to implement Specific Plan design guidelines and comply with City of Pleasanton regulations regarding lighting. Overall, this alternative's reduced development and lighting would result in fewer impacts on light and glare than the Base Plan.

#### Air Quality

This alternative would result in overall less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational air pollutant emissions. Although this alternative would still implement mitigation measures similar to the Base Plan, the reduction in development potential and vehicle trips would reduce the severity of air quality impacts. In addition, the impacts related to Clean Air Plan consistency and cumulative criteria pollutants would also be reduced but would remain significant and unavoidable. This alternative would reduce the overall density and air quality benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. Nevertheless, this alternative would have less generation of air pollutant emissions; therefore, the overall regional impacts on air quality would be fewer than the Base Plan.

## **Biological Resources**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space land uses and therefore would result in a reduced level of ground disturbance. While the Base Plan's Industrial and southern Campus Office area would be developed as park and open space, such development would have a reduced potential to impact special-status plant species, California red-legged frog, California tiger salamander, burrowing owl, nesting bird species, state and federal jurisdictional water features, and protected trees. Nonetheless, as with the Base Plan, the implementation of mitigation will ensure potential impacts are less than significant. Overall, this alternative would have fewer impacts on biological resources than the Base Plan.

## **Cultural Resources**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space and therefore would result in a reduced level of ground disturbance. As such, this alternative would have a reduced potential to impact previously undiscovered buried cultural resources. Nonetheless, implementation of mitigation would be required to reduce potential impacts to less than significant. Therefore, this alternative would have fewer impacts on cultural resources than the Base Plan.

## **Geology, Soils, and Seismicity**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space and therefore would result in a reduced level of ground disturbance. As such, this alternative would result in reduced impacts related to seismic hazards, erosion, unstable soils, or expansive soils compared with the Base Plan. Therefore, this alternative would have fewer impacts on geology, soils, and seismicity than the Base Plan.

## **Greenhouse Gas Emissions**

This alternative would result in less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational greenhouse gas emissions. Similar to the Base Plan, this alternative would implement mitigation to reduce greenhouse gas impacts from industrial land uses to less than significant. However, this alternative would reduce the greenhouse gas benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. In summary, this alternative would have fewer greenhouse gas emissions than the Base Plan, the regional overall impact on greenhouse gases would be less than the Base Plan.

## **Hazards and Hazardous Materials**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space and therefore would result in a reduced level of ground disturbance. In addition, this alternative would result in fewer dwelling units and related occupancy, reducing the potential for exposure. As such, this alternative would result in reduced impacts related to potential exposure to existing contamination

compared with the Base Plan. Nonetheless, implementation of mitigation would be required to reduce potential impacts to less than significant. Therefore, this alternative would have fewer impacts on hazards and hazardous materials than the Base Plan.

### **Hydrology and Water Quality**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space and therefore would result in a reduced level of impervious surface. This would result in a reduced potential to impact surface water quality and alter drainage patterns. Nonetheless, implementation of mitigation to reduce impacts to a level of less than significant would still be required. Overall, this alternative would generate fewer hydrology and water quality impacts compared with the Base Plan.

### **Land Use and Planning**

Similar to the Base Plan, this alternative would include implementation of a Specific Plan for the project site. Also similar to the Base Plan, buildout of the Specific Plan Area would be required to comply with applicable General Plan, Zoning Ordinance, and ALUC policies. Relocation of the Pleasanton Transfer Station and Recycling Center to the east would reduce potential land conflicts with adjacent residential land uses but would locate it closer to the Shadow Cliffs Recreational Area. Overall, this alternative would result in impacts on land use and planning similar to the Base Plan.

### **Mineral Resources**

Similar to the Base Plan, implementation of this alternative would preclude any further mining activities within Specific Plan boundaries. Upon completion of existing reclamation efforts, the Specific Plan Area will no longer contain significant quantities of mineral resources and will no longer support mining operations. The Base Plan's impacts on Mineral Resources were found to be less than significant. Impacts of this alternative would be similar to the Base Plan.

### **Noise**

Construction activities would be required to implement mitigation similar to the Base Plan to ensure short-term noise impacts are less than significant. However, the overall reduction in development would incrementally reduce the duration of construction noise. This alternative would generate 18,100 fewer daily trips associated with the reduced residential and non-residential development and, therefore, would have a reduced contribution to noise levels on local roadways. In addition, the partial El Charro Road extension would result in reduced changes in redistribution of existing roadway noise. Overall, this alternative would result in fewer impacts on noise than the Base Plan.

### **Population and Housing**

The Base Plan's population and employment growth would not exceed forecasted population growth assumptions and are consistent with growth contemplated by the General Plan. Because this alternative would result in fewer dwelling units and, therefore, fewer residents, it also would not exceed forecasted population growth assumptions. This alternative would meet Regional Housing Needs Allocations for the 2014–2022 period. In addition, the employment growth created by this alternative would be within the assumptions of the General Plan, and would already be accounted



for in local and regional forecasts. Because of the reduced population, this alternative would have fewer impacts on population and housing than the Base Plan.

### **Public Services and Recreation**

Because this alternative would result in an overall reduced development intensity and generate fewer residences than the Base Plan, it would result in correspondingly reduced impacts on public services and recreation through reduced calls for service and public facility usage. Similar to the Base Plan, development under this alternative would be required to implement General Plan policies requiring fire hazard mitigations and pay development impact fees to ensure impacts are less than significant. Overall, this alternative would have fewer impacts on public services and recreation than the Base Plan.

### **Transportation/Traffic**

This alternative would result in 11,290 daily trips compared with the Base Plan's 29,390 daily trips, including fewer trips during the morning and afternoon peak hours. While peak-hour trips would be reduced, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. In addition, this alternative would cause operations at the Valley Avenue at Santa Rita Road to degrade to LOS E during the PM peak hour, resulting in a potentially significant impact. As no additional improvements are planned at this intersection, this impact may be significant and unavoidable. This alternative would also further degrade operations at the intersection of Jack London Boulevard and Isabel Avenue, resulting in a potentially significant impact that would not occur with the Base Plan.

This alternative would not construct the transportation infrastructure identified for the Plan Area in the City's General Plan. The exclusion of El Charro Road construction from this alternative would alter the expected travel patterns assumed in the General Plan. At a minimum, these shifts in travel patterns would increase the number of vehicle trips on Valley Avenue and Santa Rita Road. It is estimated that approximately 30,000 vehicles per day would use El Charro Road. The elimination of the full connection of El Charro Road would reroute the 30,000 vehicles per day to Santa Rita Road, Valley Avenue and other parallel arterials located in Livermore; this would likely cause a ripple effect that could impact adjacent intersections that were not included in this EIR analysis, and create new impacts that were not contemplated in the City's General Plan. Mitigation would be required to reduce impacts to a level of less than significant, and the list of intersections needing new traffic mitigation as a result of this alternative may exceed the intersection locations evaluated in this EIR. Additional analysis would be necessary to quantify the impacts resulting from this alternative along all arterial intersections within the City, including several intersections not analyzed in this EIR document.

As a result of the reduced dwelling unit ratios and related population reduction under this alternative, the impact to parking at the East Pleasanton BART station would be reduced but would still be significant and unavoidable in the short term. In addition, this alternative would be somewhat inconsistent with the General Plan's identification of the El Charro Road extension because the road would be connected to Valley Avenue instead of Stanley Boulevard, but would still provide local connectivity. As such, this alternative would not realize the full benefits of the El

Charro Road extension related to shifting traffic from Isabel Avenue and improving operations of the Jack London Boulevard at Isabel Avenue during both peak hours, and would result in potentially significant impacts elsewhere. As such, this alternative would have overall greater impacts on transportation than the Base Plan.

### **Utilities and Service Systems**

The reduced development square footage and population of this alternative would have correspondingly reduced demand for potable water and wastewater disposal and treatment relative to the Base Plan. This alternative would result in less construction and operational waste and, similar to the Base Plan, would be required to implement waste reduction measures. This alternative would have a reduced demand for energy, but would also be guided by Specific Plan policies to implement energy conservation and alternative energy strategies that would reduce potential impacts to a level of less than significant. Therefore, this alternative would have fewer impacts on utility systems than the Base Plan.

### **5.9.2 - Conclusion**

Alternative 4 would result in fewer impacts than the Base Plan in most categories, with the exception of similar impacts related to land use and planning; and mineral resources; and greater impacts to transportation.

This alternative would satisfy the project objectives related to capital investment, transportation, minimizing impacts to sensitive uses, and redevelopment objectives. However, single family residential, industrial, and commercial development would be accomplished to a lesser extent than the Base Plan.

## **5.10 - Alternative 5 – 500 Single-Family Units with No El Charro Road Extension**

This alternative (Exhibit 5-7) would be similar to Alternative 4, with the exception of El Charro Road, which would not be extended from the north. Instead, the El Charro Road alignment would be reserved as an emergency vehicle access route between the proposed northern Campus Office area and the Residential area southwest of Cope Lake. Busch Road would be altered to loop through the residential area and back to Valley Avenue. Overall, this alternative would result in 2.98 million square feet of development, 3.53 million square feet less than the Base Plan.

### **5.10.1 - Impact Analysis**

#### **Aesthetics, Light, and Glare**

This alternative would result in an overall reduction in development compared with the Base Plan. Similar to the Base Plan, this alternative would be required to implement Specific Plan design guidelines and comply with City of Pleasanton regulations regarding lighting. Overall, this alternative's reduced development and lighting would result in fewer impacts on light and glare than the Base Plan.

## **Air Quality**

This alternative would result in overall less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational air pollutant emissions. Although this alternative would still implement mitigation measures similar to the Base Plan, the reduction in development potential and vehicle trips would reduce the severity of air quality impacts. In addition, the impacts related to Clean Air Plan consistency and cumulative criteria pollutants would also be reduced but would remain significant and unavoidable. In addition, this alternative would reduce the overall density and air quality benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. However, this alternative would have less generation of air pollutant emissions, the overall regional impact on air quality would be less than the Base Plan.

## **Biological Resources**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space land uses and therefore would result in a reduced level of ground disturbance. While the Base Plan's Industrial and southern Campus Office area would be developed as park and open space, such development would have a reduced potential to impact special-status plant species, California red-legged frog, California tiger salamander, burrowing owl, nesting bird species, state and federal jurisdictional water features, and protected trees. Nonetheless, as with the Base Plan, the implementation of mitigation will ensure potential impacts are less than significant. Overall, this alternative would have fewer impacts on biological resources than the Base Plan.

## **Cultural Resources**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space and therefore would result in a reduced level of ground disturbance. As such, this alternative would have a reduced potential to impact previously undiscovered buried cultural resources. Nonetheless, implementation of mitigation would be required to reduce potential impacts to less than significant. Therefore, this alternative would have fewer impacts on cultural resources than the Base Plan.

## **Geology, Soils, and Seismicity**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space and therefore would result in a reduced level of ground disturbance. As such, this alternative would result in reduced impacts related to seismic hazards, erosion, unstable soils, or expansive soils compared with the Base Plan. Therefore, this alternative would have fewer impacts on geology, soils, and seismicity than the Base Plan.

## **Greenhouse Gas Emissions**

This alternative would result in less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational greenhouse gas emissions. Similar to the Base Plan, this alternative would implement mitigation to reduce greenhouse gas

impacts to less than significant. However, this alternative would reduce the greenhouse gas benefits associated with dense mixed-use development such as internal trip capture and alternative transit use compared with the Base Plan. As such, this alternative would be less supportive of the regional goals of smart-growth development. In summary, this alternative would have fewer greenhouse gas emissions than the Base Plan, the regional overall impact on greenhouse gases would be less than the Base Plan.

### **Hazards and Hazardous Materials**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space and therefore would result in a reduced level of ground disturbance. In addition, this alternative would result in fewer dwelling units and related occupancy, reducing the potential for exposure. As such, this alternative would result in reduced impacts related to potential exposure to existing contamination compared with the Base Plan. Nonetheless, implementation of mitigation would be required to reduce potential impacts to less than significant. Therefore, this alternative would have fewer impacts on hazards and hazardous materials than the Base Plan.

### **Hydrology and Water Quality**

The extent of this alternative's development footprint would be reduced as a result of the replacement of Industrial and Destination land uses with City Park and Open Space and therefore would result in a reduced level of impervious surface. This would result in a reduced potential to impact surface water quality and alter drainage patterns. Nonetheless, implementation of mitigation to reduce impacts to a level of less than significant would still be required. Overall, this alternative would generate fewer hydrology and water quality impacts compared with the Base Plan.

### **Land Use and Planning**

Similar to the Base Plan, this alternative would include implementation of a Specific Plan for the project site. Also similar to the Base Plan, buildout of the Specific Plan Area would be required to comply with applicable General Plan, Zoning Ordinance, and ALUC policies. Relocation of the Pleasanton Transfer Station and Recycling Center to the east would reduce potential land conflicts with adjacent residential land uses but would locate it closer to the Shadow Cliffs Recreational Area. Overall, this alternative would result in impacts on land use and planning similar to the Base Plan.

### **Mineral Resources**

Similar to the Base Plan, implementation of this alternative would preclude any further mining activities within Specific Plan boundaries. Upon completion of existing reclamation efforts, the Specific Plan Area will no longer contain significant quantities of mineral resources and will no longer support mining operations. The Base Plan's impacts on Mineral Resources were found to be less than significant. Impacts of this alternative would be similar to the Base Plan.

### **Noise**

Construction activities would be required to implement mitigation similar to the Base Plan to ensure short-term noise impacts are less than significant. However, the overall reduction in development

would incrementally reduce the duration of construction noise. This alternative would generate 18,100 fewer daily trips associated with the reduced residential and non-residential development and, therefore, would have a reduced contribution to noise levels on local roadways. In addition, because El Charro Road would not provide traffic movement through the Plan Area, changes to the distribution of existing roadway noise would be minimal. Overall, this alternative would result in fewer impacts on noise than the Base Plan.

### **Population and Housing**

The Base Plan's population and employment growth would not exceed forecasted population growth assumptions and are consistent with growth contemplated by the General Plan. Because this alternative would result in fewer dwelling units and, therefore, fewer residents, it also would not exceed forecasted population growth assumptions. This alternative would meet Regional Housing Needs Allocations for the 2014–2022 period. In addition, the employment growth created by this alternative would be within the assumptions of the General Plan, and would already be accounted for in local and regional forecasts. Because of the reduced population, this alternative would have fewer impacts on population and housing than the Base Plan.

### **Public Services and Recreation**

Because this alternative would result in an overall reduced development intensity and generate fewer residences than the Base Plan, it would result in correspondingly reduced impacts on public services and recreation through reduced calls for service and public facility usage. Similar to the Base Plan, development under this alternative would be required to implement General Plan policies requiring fire hazard mitigations and pay development impact fees to ensure impacts are less than significant. Overall, this alternative would have fewer impacts on public services and recreation than the Base Plan.

### **Transportation/Traffic**

This alternative would result in 11,290 daily trips compared with the Base Plan's 29,390 daily trips, including fewer trips during the morning and afternoon peak hours. While peak-hour trips would be reduced, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. In addition, this alternative would cause operations at the Valley Avenue at Santa Rita Road to degrade to LOS E during the PM peak hour, resulting in a potentially significant impact. As no additional improvements are planned at this intersection, this impact may be significant and unavoidable. This alternative would also further degrade operations at the intersection of Jack London Boulevard and Isabel Avenue, resulting in a potentially significant impact that would not occur with the Base Plan.

This alternative would not construct the transportation infrastructure identified for the Plan Area in the City's General Plan. The exclusion of El Charro Road construction from this alternative would alter the expected travel patterns assumed in the General Plan. At a minimum, these shifts in travel patterns would increase the number of vehicle trips on Valley Avenue and Santa Rita Road. It is estimated that approximately 30,000 vehicles per day would use El Charro Road. The elimination of the full connection of El Charro Road would reroute the 30,000 vehicles per day to Santa Rita Road, Valley Avenue and other parallel arterials located in Livermore; this would likely cause a ripple effect

that could impact adjacent intersections that were not included in this EIR analysis and create new impacts that were not contemplated in the City’s General Plan. Mitigation would be required to reduce impacts to a level of less than significant, and the list of intersections needing new traffic mitigation as a result of this alternative may exceed the intersection locations evaluated in this EIR. Additional analysis would be necessary to quantify the impacts resulting from this alternative along all arterial intersections within the City, including several intersections not analyzed in this EIR document.

As a result of the reduced dwelling unit ratios and related population reduction under this alternative, the impact to parking at the East Pleasanton BART station would be reduced but would still be significant and unavoidable in the short term. However, this alternative would conflict with the General Plan, which identifies the extension of El Charro Road to Stanley Boulevard as a future roadway improvement both in text and in circulation maps. The General Plan specifically states that extension of El Charro Road is a “significant and necessary part of Pleasanton’s local circulation system.” As such, this alternative would not realize the benefits of the El Charro Road extension related to shifting traffic from Isabel Avenue and improving operations of the Jack London Boulevard at Isabel Avenue during both peak hours. Because of this, and the additional potentially significant impact, this alternative would have greater impacts on transportation than the Base Plan.

### **Utilities and Service Systems**

The reduced development square footage and population of this alternative would have correspondingly reduced demand for potable water and wastewater disposal and treatment relative to the Base Plan. This alternative would result in less construction and operational waste and, similar to the Base Plan, would be required to implement waste reduction measures. This alternative would have a reduced demand for energy, but would also be guided by Specific Plan policies to implement energy conservation and alternative energy strategies that would reduce potential impacts to a level of less than significant. Therefore, this alternative would have fewer impacts on utility systems than the Base Plan.

### **5.10.2 - Conclusion**

Alternative 5 would result in fewer impacts than the Base Plan in most categories, with the exception similar impacts related to mineral resources and land use, and greater impacts to transportation.

This alternative would satisfy the project objectives related to capital investment, transportation, minimizing impacts to sensitive uses, and redevelopment objectives. However, single family residential, industrial, and commercial development would be accomplished to a lesser extent than the Base Plan.

## **5.11 - Alternative 6 – Park**

Under Alternative 6 (Exhibit 5-8), no residential or commercial development would occur within the Specific Plan boundaries. The Pleasanton Transfer Station and Recycling Center would remain at its current location. All other developable areas would be maintained as city park or open space. The city park area south of Busch road would include a parking lot, active sports area, and dog park.

Land north of Busch Road and east of the Pleasanton Transfer Station and Recycling Center would be maintained as open space, a portion of which would be used for wildlife habitat banking. The area north of Lake I would also be designated as a city park.

### 5.11.1 - Impact Analysis

#### Aesthetics, Light, and Glare

Unlike the Base Plan, this alternative would not result in any residential or commercial development in the Specific Plan Area. City Park space would include an active sports area, which would include lighting for nighttime sporting events. All park lighting would be implemented to reduce unwanted spillover onto neighboring properties. The active sports area, which would contain the most lighting would be located south of the Operations Service Center and be surrounded by additional park space and therefore would not be likely to result in significant lighting impacts to existing residential areas located north of the Operations Service Center or south of Stanley Boulevard. Overall, this alternative would have fewer impacts on aesthetics, light, and glare than the Base Plan.

#### Air Quality

This alternative would result in significantly less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational air pollutant emissions. Although this alternative would still implement mitigation measures similar to the Base Plan, the lack of development and reduction in vehicle trips would reduce the severity of air quality impacts. The impacts related to Clean Air Plan consistency and cumulative criteria pollutants would likely be reduced to a less than significant level. However, this alternative would have less generation of air pollutant emissions, the regional overall impact on air quality would be less than the Base Plan.

#### Biological Resources

The extent of this alternative's development footprint would be significantly reduced as the result of the lack of residential and commercial development and reduced level of ground disturbance related to park development. Nonetheless, park development activities would still have the potential to impact special-status plant species, California red-legged frog, California tiger salamander, burrowing owl, nesting bird species, state and federal jurisdictional water features, and protected trees, albeit to a lesser degree. As with the Base Plan, the implementation of mitigation would reduce potential impacts to less than significant. This alternative would also provide the city with an area designated for wildlife habitat banking. Therefore, this alternative would have fewer impacts on biological resources than the Base Plan.

#### Cultural Resources

The extent of this alternative's development footprint would be significantly reduced as the result of the lack of residential and commercial development and reduced level of ground disturbance related to park development. Nonetheless, park development would still have the potential to impact previously undiscovered buried cultural resources, albeit to a lesser degree, and would require the implementation of mitigation to reduce impacts to less than significant. Therefore, this alternative would have fewer impacts on cultural resources than the Base Plan.

## **Geology, Soils, and Seismicity**

The extent of this alternative's development footprint would be significantly reduced as the result of the lack of residential and commercial development and reduced level of ground disturbance related to park development. Nonetheless, park development would still have the potential for impacts related to seismic hazards, erosion, unstable soils, or expansive soils as the Base Plan, albeit to a lesser degree. Therefore, this alternative would have fewer impacts on geology, soils, and seismicity than the Base Plan.

## **Greenhouse Gas Emissions**

This alternative would result in significantly less construction activity and fewer daily vehicle trips, which have corresponding reductions in the severity of construction and operational greenhouse gas emissions. Because this alternative would have fewer greenhouse gas emissions than the Base Plan, the regional overall impact on greenhouse gases would be less than the Base Plan.

## **Hazards and Hazardous Materials**

The extent of this alternative's development footprint would be significantly reduced as the result of the lack of residential and commercial development and reduced level of ground disturbance related to park development. Similar to the Base Plan, the implementation of mitigation would reduce impacts to a level of less than significant. While typical household chemicals would not be used onsite, pesticides and fertilizers would be used as needed throughout the park in accordance with applicable regulations. Nonetheless, park development would still have the potential for exposure to existing contamination but to a lesser extent, due to the lack of residential uses onsite. Therefore, this alternative would have fewer hazards and hazardous materials impacts than the Base Plan.

## **Hydrology and Water Quality**

The extent of this alternative's development footprint would be significantly reduced as the result of the lack of residential and commercial development and reduced level of ground disturbance related to park development. Therefore, much less impervious surface area would be constructed, resulting in a reduced potential to impact surface water quality and alter drainage patterns. Nonetheless, implementation of mitigation to reduce impacts to a level of less than significant would still be required. This alternative would generate fewer hydrology and water quality impacts compared with the Base Plan.

## **Land Use and Planning**

Similar to the Base Plan, this alternative would include implementation of a Specific Plan for the East Pleasanton area. Also similar to the Base Plan, buildout of the Specific Plan Area would be required to comply with applicable General Plan, Zoning Ordinance, and ALUC policies. However, this alternative is not consistent with the General Plan, which identifies the Specific Plan Area for future mixed-use urban development. This alternative would also not be consistent with the General Plan's identification of the El Charro Road extension, nor would it be consistent with the General Plan's identification of only one 38-acre community park in the Specific Plan Area. Therefore, this alternative would result in greater impacts on land use and planning than the Base Plan.



## Mineral Resources

Similar to the Base Plan, implementation of this alternative would preclude any further mining activities within Specific Plan boundaries. Upon completion of existing reclamation efforts, the Specific Plan Area will no longer contain significant quantities of mineral resources and will no longer support mining operations. The Base Plan's impacts on Mineral Resources were found to be less than significant. Impacts of this alternative would be similar to the Base Plan.

## Noise

Construction activities would be required to implement mitigation similar to the Base Plan to ensure short-term noise impacts are less than significant. However, the land use change to park development would significantly reduce duration of construction noise. Instead of industrial and residential related noise, this alternative would produce noises typical to active park uses such as cheering at sporting events, which would be intermittent. Because this alternative would generate substantially fewer daily trips, it would have a smaller contribution to noise levels on local roadways and would not be likely to increase roadway noise by over 4 dBA, thereby avoiding the Base Plan's significant and unavoidable impact. Overall, this alternative would result in fewer impacts on noise than the Base Plan.

## Population and Housing

The Base Plan's population and employment growth would not exceed forecasted population growth assumptions and are consistent with growth contemplated by the General Plan. This alternative would not result in new residences and likely very few employment opportunities. As such, it would not exceed forecasted population growth assumptions, but would not contribute to the provision of additional employment opportunities. This alternative would not assist the City in meeting Regional Housing Needs Allocations for the 2014–2022 period. Overall, because of the lack of increase in population and employment growth, this alternative would have fewer impacts on population and housing than the Base Plan.

## Public Services and Recreation

Because this alternative would result in no residential or commercial development, it would result in limited impacts on public services, primarily limited to police and fire response services to the park areas within the Specific Plan Area. This alternative would provide a substantial amount of new public recreation space. Overall, this alternative would have fewer impacts on public services and beneficial impacts on recreation compared with the Base Plan.

## Transportation/Traffic

This alternative would result in 3,440 daily trips compared with the Base Plan's 29,390 daily trips. However, this alternative would not realize the benefits of the El Charro Road extension related to shifting traffic from Isabel Avenue and improving operations of the Jack London Boulevard at Isabel Avenue during both peak hours.

This alternative would not construct the transportation infrastructure identified for the Plan Area in the City's General Plan. The exclusion of El Charro Road construction from this alternative would alter

the expected travel patterns assumed in the General Plan. At a minimum, these shifts in travel patterns would increase the number of vehicle trips on Valley Avenue and Santa Rita Road. It is estimated that approximately 30,000 vehicles per day would use El Charro Road. The elimination of the full connection of El Charro Road would reroute the 30,000 vehicles per day to Santa Rita Road, Valley Avenue and other parallel arterials located in Livermore; this would likely cause a ripple effect that could impact adjacent intersections that were not included in this EIR analysis, and create new impacts that were not contemplated in the City's General Plan. Mitigation would be required to reduce impacts to a level of less than significant, and the list of intersections needing new traffic mitigations as a result of this alternative may exceed the intersection locations evaluated in this EIR. Additional analysis would be necessary to quantify the impacts resulting from this alternative along all arterial intersections within the City, including several intersections not analyzed in this EIR document.

Because this alternative would not include residential units and would therefore not result in additional population, this alternative would not contribute to the impact to parking at the East Pleasanton BART station, thereby avoiding this significant and unavoidable short-term impact. Overall, this alternative would have greater impacts on transportation than the Base Plan.

### Utilities and Service Systems

Because this alternative would not result in residential or commercial development it would result in a significant reduction in demand for potable water and wastewater disposal and treatment relative to the Base Plan. Recycled water could be used to irrigate parklands, thereby, reducing the need for potable water. This alternative would result in less construction and operational waste and, similar to the Base Plan, would be required to implement waste reduction measures. This alternative would also have a reduced demand for energy. Therefore, this alternative would have fewer impacts on utility systems than the Base Plan.

### 5.11.2 - Conclusion

Alternative 6 would result in fewer impacts than the Base Plan in most categories with the exception of greater impacts to land use and transportation and similar impacts to mineral resources.

This alternative would not satisfy the project objectives related to capital investment, transportation, and redevelopment objectives.

## 5.12 - Environmentally Superior Alternative

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an “environmentally superior” alternative for the purposes of disclosure. The qualitative environmental effects of each alternative in relation to the Base Plan described earlier in the section are summarized in Table 5-5. To quantitatively identify an environmentally superior alternative, a numeric value has been applied to each qualitative environmental effect: +1 for greater impacts, 0 for similar impacts, and -1 for fewer impacts. Accordingly, the alternative with the lowest score is the environmentally superior alternative, indicating that it would result in the greatest reduction of environmental impacts compared with the Base Plan. Note that the CEQA Guidelines do not require the environmentally superior alternative to be implemented by the lead agency.

**Table 5-5: Comparison of Alternatives**

Environmental Topic Area	Alternative Impacts							
	No Project/ No Build	No Project	1 (1,430 units)	2 (1,000 units)	3 (800 units)	4 (500 units, partial El Charro)	5 (500 Units, no El Charro)	6 (Park)
Aesthetics, Light, and Glare	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Air Quality	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer(-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Biological Resources	Fewer (-1)	Greater (+1)	Similar (0)	Similar (0)	Similar (0)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Cultural Resources	Fewer (-1)	Fewer (-1)	Similar (0)	Similar (0)	Similar (0)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Geology, Soils, and Seismicity	Fewer (-1)	Fewer (-1)	Similar (0)	Similar (0)	Similar (0)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Greenhouse Gas Emissions	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer(-1)	Fewer (-1)	Fewer (-1)	Fewer (-1))	Fewer (-1)
Hazards and Hazardous Materials	Fewer (-1)	Fewer (-1)	Similar (0)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Hydrology and Water Quality	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Land Use	Greater (+1)	Greater (+1)	Similar (0)	Similar (0)	Similar (0)	Similar (0)	Similar (0)	Greater (+1)
Mineral Resources	Similar (0)	Similar (0)	Similar (0)	Similar (0)	Similar (0)	Similar (0)	Similar (0)	Similar (0)
Noise	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Population and Housing	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Public Services and Recreation	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Transportation/Traffic	Greater (+1)	Greater (+1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Greater (+1)	Greater (+1)	Greater (+1)
Utilities and Service Systems	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)	Fewer (-1)
Score	-8	-8	-9	-10	-10	-11	-11	-10

Source: FCS, 2014.

As shown in Table 5-5, both Alternative 4 and Alternative 5 would result in the fewest (-11) environmental impacts. Because Alternative 4 would provide greater circulation in the Plan Area than Alternative 5, resulting potential offsite intersection impacts would be reduced. As such, Alternative 4 would be the environmentally superior alternative. However, this alternative would not satisfy the project objectives related to capital investment, creation of new jobs, development of new housing opportunities, expansion of the tax base, transportation, and redevelopment to the extent that implementation of the Base Plan would.

## SECTION 6: OTHER CEQA CONSIDERATIONS

### 6.1 - Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented. With implementation of the proposed Base Plan, the following significant impacts that cannot be avoided would occur:

- **Clean Air Plan Consistency** – The Specific Plan would not further all the primary goals of the 2010 Clean Air Plan as a result of construction equipment and vehicle exhaust air quality impacts that would remain significant and unavoidable after the implementation of mitigation.
- **Criteria Pollutants** – Large construction projects within the Plan Area involving extensive material transport would result in significant construction equipment emissions even after the implementation of mitigation if extensive equipment and/or material transport is involved. Therefore, impacts would remain significant and unavoidable.
- **Traffic Noise Increase** – Project-related traffic would result in permanent increases in ambient noise levels for which no feasible mitigation is available. Noise level increase would not exceed allowable community noise standards but would increase roadway noise by over 4dBA in several locations, which is considered a significant impact by the Pleasanton General Plan. Therefore, impacts would be significant and unavoidable.
- **Public Transit** – Development and land use activities contemplated by the Specific Plan would result in short-term (next 10 years) significant unavoidable transit parking impacts for which no feasible mitigation is available.

### 6.2 - Growth-Inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines Section 15126.2(d)).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area. Similarly, projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area) are also considered growth-inducing. Analysis of these types of infrastructure projects must also consider the development they would facilitate and serve, since they may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

At buildout, the Specific Plan boundaries would contain 1.6 million square feet of newly developed retail, office, industrial, and destination uses, along with 1,300 residential units. The residential units envisioned by the Specific Plan would be expected to result in direct population growth of approximately 4,160 people. Implementation of the Specific Plan would include the expansion or redevelopment of roads, potable water, recycled water, wastewater, and stormwater facilities, which would facilitate development and land use activities.

Buildout of the Specific Plan would create as many as 3,866 new employment opportunities over a 10-year period, or approximately 387 jobs on an annual basis. For comparison purposes, the California Employment Development Department indicates that as of October 2013, there were 1,400 unemployed persons in Pleasanton and 57,800 unemployed persons in Alameda County. Accordingly, it is expected that the jobs created by the implementation of the Specific Plan could readily be filled from the local workforce over the 10-year buildout horizon. Furthermore, ABAG projects that employment in the City of Pleasanton will increase by 16,680 jobs by the year 2035. The Specific Plan's potential employment growth is well within this projection.

The Specific Plan is a tool for the systematic implementation of the Pleasanton General Plan and establishes a link between the policies of the General Plan and the individual development proposals in the Plan Area. Thus, development and land use activities that occur within the Specific Plan boundaries that are consistent with the Specific Plan are inherently "planned growth." As such, the development of housing, infrastructure, and employment within the Plan Area would not be considered growth inducing.

### 6.3 - Energy Conservation

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed Base Plan will not result in the wasteful, inefficient, and unnecessary consumption of energy; will not cause the need for additional natural gas or electrical energy-producing facilities; and, therefore, will not create a significant impact on energy resources.

### 6.3.1 - Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the state level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting state fuel economy standards for new on-road motor vehicles. Some of the more relevant state energy-related laws and plans are discussed below.

#### State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

#### Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings.

In 2013, the CEC adopted new energy efficiency standards. Effective July 1, 2014, all projects that apply for a building permit must adhere to the new 2013 standards. Like the previous standards, the 2013 standards reflect the greenhouse gas reduction requirements of the California Global Warming Solutions Act of 2006 (AB 32).

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the presumption throughout the State that compliance with Title 24 (as well as compliance with the federal and state regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while ensuring that the efficient and non-wasteful consumption of energy is carried out through design features. For the vast majority of residential and nonresidential projects, adherence to Title 24 is deemed necessary

to ensure that no significant impacts occur from the inefficient, wasteful, and unnecessary consumption of energy. As a further example, the adoption of federal vehicle fuel standards in 1975, protect against the inefficient, wasteful, and unnecessary use of energy.

Pursuant to the California Building Standards Code and the Title 24 Energy Efficiency Standards, the City will review the design and construction components of the project's Title 24 compliance when specific building plans are submitted.

### **6.3.2 - Energy Requirements of the Proposed Project**

Short-term construction and long-term operational energy consumption are discussed below.

#### **Short-Term Construction**

Development and land use activities contemplated by the Specific Plan include short-term construction activities that would consume energy, primarily in the form of diesel fuel (e.g., mobile construction equipment) and electricity (e.g., power tools). It is not possible to reasonably estimate the amount of energy consumed by construction activities, as a number of hard-to-predict variables influence energy consumption (length of activities, size of buildings, equipment fleet, management practices, etc.).

Construction taking place within the Plan Area would be required to monitor air quality emissions using applicable regulatory guidance such as the BAAQMD CEQA Guidelines. These guidelines indirectly relate to construction energy consumption because construction air pollutant emissions are reduced through functions of energy consumption. As such, evaluation of air quality emissions on a project-by-project basis would likely utilize energy-reducing activities such as anti-idling measures, limits on duration of activities, and the use of alternative fuels, thereby reducing energy consumption.

Finally, there are no aspects of the Specific Plan that would foreseeably result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities. For example, there are no policies that would directly or indirectly cause construction activities to be any less efficient than would otherwise occur elsewhere (restrictions on equipment, labor, types of activities, etc.).

In summary, the Specific Plan would not result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities.

#### **Long-Term Operations**

##### ***Transportation Energy Demand***

Development and land use activities contemplated by the Specific Plan would include long-term operational activities that would consume energy, both in the form of transportation fuel and building/equipment energy (e.g., electricity and natural gas). It is not possible to reasonably estimate the amount of energy consumed by operational activities, as a number of hard-to-predict variables influence energy consumption.



A key aspect of the Specific Plan is to reduce vehicle miles traveled (which reduces transportation fuel consumption) through the development of pedestrian- and transit-oriented residential and employment-generating uses. Such uses would be well-positioned to allow residents, employees, and customers to use transit, ride bicycles, and walk rather than travel by single-occupant vehicle.

In summary, the Specific Plan would not result in the inefficient, wasteful, or unnecessary consumption of transportation energy during operational activities.

### **Building Energy Demand**

The Specific Plan uses are estimated to demand 40.7 million kilowatt-hours (kWh) of electricity and 183.7 million cubic feet of natural gas on an annual basis. These figures were derived from energy consumption rates provided by the United States Energy Information Administration. Refer to Impact USS-6 in Section 3.15, Public Services and Utilities for further discussion about the calculations used to arrive at these consumption estimates.

New residential and commercial development with the Plan Area would be required to comply with the Pleasanton Climate Action Plan's applicable energy conservation and reduction measures as well as the applicable measures of the General Plan's Energy Element. In addition, the Specific Plan uses would be subject to the most recently adopted edition of the Title 24 energy efficiency standards at the time building permits are sought. Title 24 standards include a number of requirements associated with energy conservation, and therefore ensure that the Specific Plan uses would not result in the inefficient, wasteful, or unnecessary use of energy.

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## SECTION 7: EFFECTS FOUND NOT TO BE SIGNIFICANT

### 7.1 - Introduction

This section is based on the Notice of Preparation (NOP), dated October 24, 2013, and contained in Appendix A of this Environmental Impact Report (EIR). The NOP was prepared to identify the potentially significant effects of the Base Plan (proposed project) and was circulated for public review until December 10, 2013. In the course of this evaluation, certain impacts were found to be less than significant because the implementation of the Base Plan would not create such impacts. This section provides a brief description of effects found not to be significant or less than significant, based on the NOP comments or more detailed analysis conducted as part of the EIR preparation process. Note that a number of impacts that are found to be less than significant are addressed in the various EIR topical sections (Sections 3.1 through 3.15) to provide more comprehensive discussion of why impacts are less than significant, in order to better inform decision-makers and the general public.

### 7.2 - Effects Found not to be Significant

#### 7.2.1 - Aesthetics, Light, and Glare

##### State Scenic Highways

Interstate 680 (I-680) is identified as an “officially designated” State Scenic Highway between State Route 24 in Walnut Creek (north of the Specific Plan Area) and Mission Boulevard in Fremont (south of the Specific Plan area). I-680 is approximately 2.75 miles west of the Specific Plan area. According to the California Scenic Highway Mapping System, within Alameda County, scenic resources visible from I-680 include wooded hillsides and valleys. Generally, views of surrounding wooded hillsides are visible west, north, and south of I-680. The topography of the land east of I-680 is generally flat, and views consist primarily of landscaping and urban development.

The Specific Plan area is not currently visible from I-680. Development in the Specific Plan Area would result in the construction of multiple-story buildings; however, they would be consistent in height and character to existing buildings in Pleasanton. Consistency with existing building heights in Pleasanton and distance to I-680 preclude impacts to scenic resources within the viewshed of I-680 from occurring. No impacts would occur.

I-580 is not an officially designated scenic highway, although it is an “eligible” State Scenic Highway between San Leandro (west of the Specific Plan area) and the Alameda County Line (east of the Specific Plan area). I-580 is approximately 0.5 mile north of the Plan Area’s northern boundary. In the Specific Plan area vicinity, I-580 provides foreground views of landscaping, urban development, and undeveloped land. Background views include hillsides, ridgelines, and urban uses.

Existing development blocks views of the Plan Area from I-580. Implementation of design standards within the Plan Area would ensure that buildings and structures within the Specific Plan boundaries,

if visible from I-580, would be consistent with the height and massing of existing surrounding urban uses. Impacts would be less than significant.

## 7.2.2 - Agriculture Resources

### Important Farmland

The California Department of Conservation, Division of Land Protection, lists Prime Farmland, Unique Farmland, and Farmland of Statewide Importance under the general category of “Important Farmland” in California. Conversion of “Important Farmland” to non-agricultural uses is generally considered potentially significant. The Farmland Mapping and Monitoring Program (FMMP) maps show agricultural areas within California that are considered “Important Farmland.” The most recent FMMP map for Alameda County shows the Specific Plan area as “Urban and Built-Up Land,” “Water,” and “Grazing Land.” These are not farming designations. Therefore, no impacts would occur.

### Williamson Act Contracts or Agricultural Zoning

A significant impact may occur if a project were to result in the conversion of land zoned for agricultural use or under a Williamson Act contract from agricultural use to another non-agricultural use. Williamson Act contracts give farmers tax incentives for keeping agricultural land in agricultural uses.

The Plan Area contains undeveloped land and areas that have previously been used for mining and industrial purposes. The Specific Plan area is zoned for industrial, residential, retail, office, and open space uses, which are non-farming zoning designations. No Williamson Act contracts exist within the Specific Plan Area. These conditions preclude any impacts to Williamson Act contracts and agricultural zoning. As such, no impacts would occur.

### Conversion of Forest Land to Non-Forest Use

Public Resources Code (PRC) Section 12220(g) defines forest land as “. . . land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits”; additionally, timberland is defined by PRC Section 4526 as land “. . . which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products.”

The Plan Area does not include any forest land uses. Furthermore, no commercially harvestable quantity of trees exists within the Plan Area. Therefore, no forest land would be converted to non-forest use. No impacts would occur.

### Conflicts with Forest Zoning

A significant impact may occur if a project were to conflict with existing zoning for forest land. The Plan Area does not include any forest land zoning. No impacts would occur.

## **Pressures to Convert Farmland to Non-Agricultural Use**

The most recent FMMP map shows the Plan Area as “Urban and Built-Up Land,” “Water,” and “Grazing Land.” The Plan Area is neither immediately adjacent to nor substantially close to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. As the Plan Area and its surroundings are not used for agricultural purposes, this precludes impacts from conversion of farmland to non-agricultural use. As such, no impact would occur.

### **7.2.3 - Biological Resources**

#### **Habitat, Natural Community, or Other Conservation Plan**

The Plan Area is not included in any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. This precludes the possibility that the Base Plan could conflict with such a plan. No impact would occur.

### **7.2.4 - Geology, Soils, and Seismicity**

#### **Septic or Alternative Wastewater Disposal Systems**

Development within the Plan Area would be required to construct connections to the City of Pleasanton wastewater disposal system. No septic or alternative wastewater disposal systems would be implemented. No impacts would occur.

### **7.2.5 - Hazards and Hazardous Materials**

#### **Private Airstrip**

The Plan Area is not located within the vicinity of a private airstrip. No impacts would occur.

#### **Wildland Fires**

There are no wildlands directly adjacent to the Plan Area. The Plan Area is bounded by mostly urban uses and proposed urban uses to the north, south, and west. Areas adjacent to the east consist of manmade lakes, surface mining areas, and a small area of agricultural land. Further to the east are the Livermore Municipal Airport and the City of Livermore. As the Plan Area is surrounded by primarily urban uses, proposed urban uses, and bodies of water, the Plan Area would not experience risk of wildland fires. No impacts would occur.

### **7.2.6 - Hydrology and Water Quality**

#### **Seiches, Tsunamis, or Mudflows**

Seiches are waves in inland bodies of water produced by earthquakes or landslides. It is conceivable that seismic activity could trigger a seiche within Lake H, Lake I, or Cope Lake within the Plan Area, and/or other bodies of water in the Chain of Lakes located in the vicinity. However, because water levels in the lakes are typically below the surrounding ground elevation, it is unlikely that seiches would inundate any portion of the Plan Area. The Plan Area is more than 15 miles inland from the San Francisco Bay and is separated from coastal areas by mountain ranges, precluding risk of inundation by a tsunami. The Plan Area is in a relatively flat area and would not be susceptible to

mudflows. Therefore, no impact in relation to inundation by seiche, tsunami, or mudflow would occur.

## 7.2.7 - Land Use

### Division of an Established Community

The Plan Area consists of several public and private property owners with a variety of land uses. Currently, the land within the Plan Area includes three lakes, office buildings, undeveloped land, the Pleasanton Operations Service Center, the Pleasanton Transfer Station and Recycling Center, debris piles, aggregate piles, concrete structures and pads, storage sheds, and a variety of other similar uses. The Specific Plan would provide guidance for the coordination of the basic land use pattern within the approximately 1,110-acre area. At buildout, the Specific Plan boundaries would contain an estimated 1,300 housing units, 1.6 million square feet of retail, office, and industrial land uses and connecting roadways. The proposed land uses would be consistent and compatible with adjacent existing land uses and would be connected via proposed roadway alignments. Therefore, the Specific Plan would allow the area under consideration to become an established portion of the community rather than divide an already established area.

The implementation of the Specific Plan would not include the construction of barriers such as roads and walls that would make physical connections within established communities difficult. Therefore, development of the Base Plan would not sever existing connections or uses and would not prohibit future connectivity within the Plan Area. In addition, the proposed parks and trails would create a community amenity and would contribute to the Plan Area's integration into adjacent neighborhoods. Therefore, the Base Plan would have no negative impact to land use connectivity within the City of Pleasanton.

### Conservation Plans

The Plan Area is not included in any Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or state habitat conservation plan. This precludes the possibility that the Base Plan could conflict with such a plan. No impact would occur.

## 7.2.8 - Population and Housing

### Displacement of Persons or Housing

There are no housing units located within the Plan Area. No impact would occur.

## SECTION 8: PERSONS AND ORGANIZATIONS CONSULTED/LIST OF PREPARERS

### 8.1 - Persons and Organizations Consulted

#### 8.1.1 - Lead Agency

##### City of Pleasanton

###### *Planning Department*

Community Development Director ..... Brian Dolan  
Planning Manager.....Adam Weinstein  
Senior Planner ..... Shweta Bonn

###### *Engineering Division*

City Engineer..... Steve Kirkpatrick  
City Traffic Engineer ..... Mike Tassano

###### *Fire Department*

Fire Chief ..... Ruben Torres

###### *Police Department*

Police Chief ..... David C. Spiller

### 8.2 - Public Agencies

#### 8.2.1 - Federal Agencies

##### U.S. Department of Transportation, Federal Aviation Administration

Environmental Protection Specialist..... Camille Garibaldi

#### 8.2.2 - State Agencies

##### California Department of Transportation, District 4

District Branch Chief ..... Erik Alm

##### California Department of Transportation, Division of Aeronautics

Aviation Environmental Specialist ..... Philip Crimmins

##### Office of Planning and Research, State Clearinghouse

State Clearinghouse Director ..... Scott Morgan

## 8.3 - Local Agencies

### Alameda County Airport Land Use Commission

Senior Transportation Manager .....Cindy Horvath

### Alameda County Flood Control and Water Conservation District, Zone 7

Water Resources Planner ..... Elke Rank

### Alameda County Transportation Commission

Deputy Director of Planning and Policy ..... Tess Lengyel

### City of Dublin

Senior Civil Engineer ..... Obaid Khan

### City of Livermore

Planning Manager ..... Paul Spence

### East Bay Regional Park District

Acting Senior Planner ..... Neoma Lavalle

### Pleasanton Unified School District

Attorney ..... Robert Kingsley

## 8.3.1 - Private Parties and Organizations

### Pacific Gas and Electric Company

Senior New Business Representative ..... Renee Romo



## 8.4 - List of Preparers

### 8.4.1 - Lead Agency

#### City of Pleasanton

##### *Planning Services*

Brian Dolan ..... Community Development Director  
Adam Weinstein ..... Planning Manager  
Shweta Bonn..... Senior Planner  
Steve Kirkpatrick..... City Engineer  
Mike Tassano ..... City Traffic Engineer  
Daniel Smith ..... Director of Operations Services

### 8.4.2 - Lead Consultant

#### FirstCarbon Solutions

Project Director ..... Mary Bean  
Project Manager ..... Janna Waligorski  
Air Quality Scientist ..... Elena Nuño  
Biologist ..... Jeanette Owen  
Noise Analyst ..... Phil Ault  
Environmental Analyst..... Cory Phillips  
Environmental Analyst..... Ian McIntire  
Technical Editor ..... Ed Livingston  
Word Processor ..... Ericka Rodriguez  
GIS Technicians ..... Karlee McCracken  
John De Martino  
Administrative Assistant ..... Alicia Yuen  
Reprographics..... Octavio Perez  
Kevin Salguero

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