

SUNPOINTE RESIDENTIAL PROJECT DRAFT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

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Acronyms and Abbreviations

µg/L	micrograms per liter
µg/m ³	micrograms per cubic meter
AB	Assembly Bill
ADT	average daily traffic
AQMP	air quality management plan
ARB	Air Resources Board
Basin	South Coast Air Basin
Basin Plan	Water Quality Control Plan
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimate Model
Caltrans	California Department of Transportation
CAP	climate action plan
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
City	City of Laguna Niguel
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
CUSD	Capistrano Unified School District
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibels
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources, Inc.
EIR	environmental impact report

EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FGC	California Fish and Game Code
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas
GWP	global warming potential
HCP	Habitat Conservation Plan
HOA	Homeowners' Association
HVAC	heating, ventilating, and air conditioning
I	Interstate
ICF International	ICF
ICU	Intersection Capacity Utilization
IPCC	Intergovernmental Panel on Climate Change
IS	initial study
kBTU	thousand British thermal unit
L_{eq}	equivalent noise level
L_{max}	maximum sound level
L_{min}	minimum sound level
LNGP	City of Laguna Niguel General Plan
LNZC	City of Laguna Niguel Zoning Code
LOS	level of service
LST	localized significance threshold
LT	long-term
LUST	leaking underground storage tank
MATES IV	Multiple Air Toxics Exposure Study IV
MBTA	Migratory Bird Treaty Act
mg/L	milligrams per liter
mg/m^3	milligrams per cubic meter
MGD	million gallons per day
mgy	million gallons per year
MND	mitigated negative declaration
MNWD	Moulton Niguel Water District
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MSE	mechanically stabilized earth
MT	metric ton
MWD	Metropolitan Water District of Southern California
MWDOC	Municipal Water District of Orange County
MWh/year	megawatts per hour per year
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan

NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O ₃	ozone
OCFA	Orange County Fire Authority
OCHCS	County of Orange Habitat Classification System
OCSO	Orange County Sheriff's Department
OCTA	Orange County Transportation Authority
Pb	Lead
PM10	particulate matter less than or equal to 10 micrometers in diameter
PM2.5	particulate matter less than or equal to 2.5 micrometers in diameter
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
project	SunPointe Residential Project
RA	Residential Attached
RCRA	Resource Conservation and Recovery Act
RD	Residential Detached
ROC	reactive organic compound
RP	Planned Residential
RS-3	Single-Family District
RTP	Regional Transportation Plan
San Diego Water Board	San Diego Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SDG&E	San Diego Gas and Electric
SDP	Site Development Permit
SIP	State Implementation Plan
SOCWA	South Orange County Wastewater Authority
SO _x	sulfur oxides
SR	State Route
SRA	Source Receptor Area
SSC	Species of Special Concern
ST	short-term
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TDS	total dissolved solids
TIA	Transportation Impact Analysis Report
TMDL	total maximum daily load
TNM	Traffic Noise Model
USACE	U.S. Army Corps of Engineers

USFWS	U.S. Fish and Wildlife Service
V/C	volume to capacity
VOC	volatile organic compounds
VTTM	Vesting Tentative Tract Map
Williamson Act	California Land Conservation Act of 1975
WoUS	waters of the U.S.
WQMP	Water Quality Management Plan

Overview

The City of Laguna Niguel (City), as the lead agency under the California Environmental Quality Act (CEQA), has prepared this initial study (IS) and proposed mitigated negative declaration (MND) to evaluate the potential environmental effects associated with the proposed SunPointe Residential Project (project), located on an approximately 19.5-acre site in the City of Laguna Niguel, Orange County, California.

This chapter includes a brief overview of the requirements pursuant to CEQA, the scope of the environmental analysis, the document's organizational structure and content, and a list of the required discretionary approvals needed to implement the proposed project.

Preparation of an Initial Study/Mitigated Negative Declaration

When a proposed project is a discretionary action and meets the definition of a project under CEQA, the lead agency is required to prepare an environmental impact analysis and disclosure document (State CEQA Guidelines Sections 15377 ["Private Project"] and 15378 ["Project"]). The intent of the document is to: (1) inform the decision-maker, responsible and trustee agencies, and the general public of the environmental effects of the project, and (2) mitigate those effects to the extent feasible in an attempt to reduce all potential impacts to a less-than-significant level.

Unless it is already determined that an environmental impact report (EIR) will be prepared or the proposed project falls within one of the CEQA-defined exemption classes, the lead agency generally starts the documentation process by preparing an IS (State CEQA Guidelines Sections 15250–15253 ["Statutory Exemptions"] and Sections 15300–15332 ["Categorical Exemptions"]). Once completed, the IS provides the lead agency with direction on which type of CEQA documentation is appropriate for a specific project. When an IS determines that a project may result in a potentially significant and unavoidable impact, an EIR is appropriate. For projects that would have little to no effect on the environment, either a categorical exemption or negative declaration is generally appropriate. For projects with a potentially significant impact that can be mitigated to a less-than-significant level and would consequently not result in significant unavoidable impacts, an MND is prepared.

Based on the results of the IS, the City has determined that the proposed project would result in less-than-significant impacts after mitigation is incorporated, and no significant unavoidable impacts would occur. Therefore, the appropriate CEQA compliance document is an IS/MND.

Requirements of an Initial Study/Mitigated Negative Declaration

The preparation of an IS/MND is governed by two principal sets of documents: CEQA (Public Resources Code [PRC] Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15000, et seq.). Specifically, State CEQA Guidelines Section 15063 (“Initial Study”) and Sections 15070–15075 (“Negative Declaration Process”) guide the process for the preparation of an IS/MND. Where appropriate and supportive to an understanding of the issues, reference is made either to the statute, the State CEQA Guidelines, or appropriate case law.

This IS/MND, as required by State CEQA Guidelines Section 15071, contains (1) a brief description of the project, (2) the project location, (3) a proposed finding that the project will not have a significant effect on the environment, (4) a copy of the IS documenting support for the findings, and (5) all mitigation measures to be implemented.

Environmental Issues Addressed

This IS/MND evaluates the proposed project’s effects on the following resource topics.

- Aesthetics
- Agriculture and forestry resources
- Air quality
- Biological resources
- Cultural resources
- Geology and soils
- Greenhouse gas emissions
- Hazards and hazardous materials
- Hydrology and water quality
- Land use and planning
- Mineral resources
- Noise
- Population and housing
- Public services
- Recreation
- Transportation and traffic
- Utilities and service systems
- Mandatory findings of significance

The environmental setting and impact analysis discussion for each of these topics is provided in Chapter 3, *Environmental Analysis*.

Document Organization and Content

The content and format of this IS/MND is designed to meet the requirements of CEQA. This report is organized as follows:

- Chapter 1, *Introduction and Overview*, identifies the intent and requirements of the IS/MND and a list of the environmental resources and issue areas to be analyzed.
- Chapter 2, *Project Description*, describes the location, general environmental setting, project background, project components, and the characteristics of the proposed project’s construction and operational phases.

- Chapter 3, *Environmental Analysis*, presents the environmental setting and impact analysis for each resource topic.
- Chapter 4, *References*, identifies all sources and individuals cited in this IS/MND.
- Chapter 5, *List of Preparers*, identifies the individuals who prepared this report and their areas of technical expertise.

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Chapter 2

Project Description and Environmental Setting

Overview

The proposed project would involve the development of up to 71 small-lot, single-family residences on a 19.5-acre hillside in the northeastern portion of the City of Laguna Niguel. Implementation of the proposed project would require the City Council to approve: (1) a General Plan Amendment, (2) a Zone Change, (3) a Vesting Tentative Tract Map (VTTM), (4) a Site Development Permit (SDP), and (5) a Minor Adjustment. Details of the proposed project, including the existing conditions, location, project components, and construction, are presented in this chapter.

Existing Setting

City of Laguna Niguel

The City of Laguna Niguel is approximately 14.72 square miles and is in the southwestern area of Orange County, California. The City was incorporated in 1989 as one of the first major planned communities in Southern California and is described as having a “Sea Country” atmosphere due to its coastal orientation. The City has been developed as a bedroom community with a series of master planned communities and specific plans among the parks, trails, and landscaped highway medians and slopes. The City is divided into 14 Community Profile Areas to manage community planning efforts (City of Laguna Niguel 1992). Adjacent cities include Dana Point to the south; the city of San Juan Capistrano to the east; the county of Orange (Aliso and Woods Regional Park), the cities of Aliso Viejo and Laguna Beach to the west; and the cities of Laguna Hills and Mission Viejo to the north.

Location and Surrounding Land Uses

The project site encompasses 19.5 acres of hillside property, accessible through an existing neighborhood at the southern terminus of Avenida del Caballo. The assessor’s parcel numbers are 637-071-1 through 637-071-36. Figures 2-1 and 2-2 show the regional and local location of the project site.

The project site is situated on an east-facing hillside and bound on the north by Country View Estates residential development, on the east by Mercedes Benz of Laguna Niguel, on the south by a slope descending to Rancho Capistrano and Saddleback Church, and on the west by open space and the Mira Vista subdivision. An existing overgrown trail segment was previously rough graded along the northern portion of the proposed project site, but was never deeded to the City. Figure 2-3 shows the project site and the surrounding area.

Project Site History

The project site was originally subdivided and mass graded for development as a residential tract (Tract 5241) in the early 1960s. Site improvements included the installation of utility (water, gas,

electric) infrastructure; street improvements, including paved streets and curbs; and building pads for the future construction of homes. Shortly thereafter, however, development of the site was suspended due to the discovery of underlying landslide material that was not properly remediated prior to the installation of street improvements. As such, development was placed on hold until geotechnical remediation became feasible.

During the late 1980s and the early 1990s, several of the adjacent single-family residential communities within the Community Plan of Colinas de Capistrano, including the subdivisions of Mira Vista and Country View Estates, were constructed. With the construction of Mercedes Benz of Laguna Niguel in the late 1990s, the project site was almost completely surrounded by development, which placed financial and logistical constraints on implementing geotechnical remediation of the underlying landslide material. Only recently has the site been studied in comprehensive enough a manner to develop a feasible remediation solution that can be fully accomplished on site and with a balanced grading plan (no mass export).

Existing Site Conditions

The project site is an irregularly shaped 19.5-acre hillside property. The site elevation ranges between 250 and 455 feet above mean sea level. The site includes 35 rough-graded residential lots with paved streets, curbs, gutters, manufactured slopes, and a rough-graded multi-use trail segment. Existing paved streets within the site include Avenida del Caballo, Remolino Lejos Road, Calle de Cambio, Mar Bizcocho Road, and Hombre de Guerra Road. The site also includes existing underground and above-ground utilities, including an active Moulton Niguel Water District (MNWD) pump station, water mainlines, gas, electric, telephone, fire hydrants, electric transformers, and light standards. Limited areas of vegetation are currently distributed on the site. There are no buildings on the project site.

Existing General Plan Land Use Designation

The site currently has a General Plan designation of “Residential Detached” (RD). The existing General Plan designations for the site and surrounding area are shown on Figure 2-4.

The RD General Plan land use designation applies to areas that are characterized by the construction of one single-family dwelling on a legal building site or individual subdivided lots. Only single-family, detached residential units are allowed within the RD land use designation. The surrounding General Plan land use designations include RD to the north, and Community Commercial and Open Space to the east and southeast. The hillside between the project site and the Mira Vista community is within the City of San Juan Capistrano and designated as General Open Space. Areas to the west within the City of Laguna Niguel that lie beyond land controlled by the City of San Juan Capistrano are designated RD. Areas to the south of the site are also within San Juan Capistrano within the Crystal Cathedral Ministries Planned Community area, which allows for primarily Public Institutional use (80%) with Assisted Care Facility (20%).

For comprehensive planning purposes, the City of Laguna Niguel has also been separated into 14 Community Profile Areas to allow for a more manageable approach to community planning and implementation. The Community Profile Area analysis provides the framework for the formulation of City goals, policies, and implementation actions at a profile area level. In some cases, broad citywide policies may not clearly address issues unique to a specific profile area. The Community



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**Figure 2-1
Regional Vicinity Map
SunPointe Residential Project**





N
 0 600 1,200
 Feet
 Source: ESRI StreetMap North America (2013)

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Figure 2-2
Project Location
SunPointe Residential Project

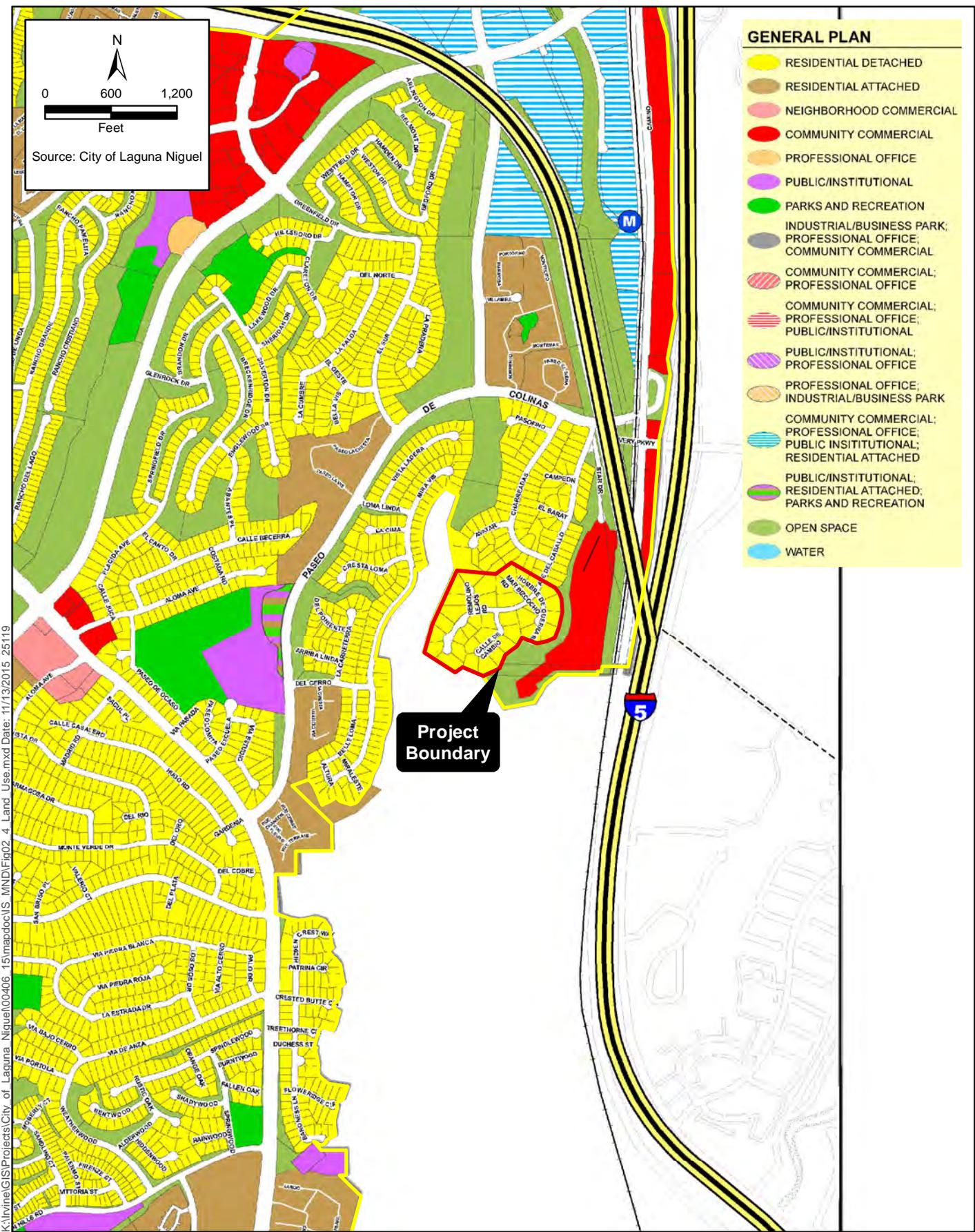


N
 0 600 1,200
 Feet
 Source: NAIP Imagery (2010)

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Figure 2-3
Existing Conditions
SunPointe Residential Project



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Figure 2-4
Existing General Plan Land Use
SunPointe Residential Project

Profile Area analysis identifies these issues and provides the basis for the formulation of appropriate implementation actions.

In addition, each sub-profile area analysis summarizes the existing and projected development. The summaries include either a statement that the sub profile area is built out with no additional projected residential or non-residential development, or a statement of the maximum future development of residential units or commercial square footage. The projection of maximum future development sets the land use limits within each sub-profile area.

When the General Plan was prepared, the land use designation and corresponding density on the project site relied on the previously approved tract map. Thus, the future development was set at 35 dwelling units. The land use limits established in the Land Use Element were used to conduct the necessary analyses including, but not limited to, the Traffic Model and the Economic Study. Therefore, development applications that exceed the land use limits will require a General Plan Amendment and analysis of the impacts of the proposed changes.

The proposed project is within Community Profile Area 3, which consists of 526 acres and is located in the northeastern area of Laguna Niguel. The profile area is generally bounded by the City of San Juan Capistrano to the south, Crown Valley Parkway and Street of the Golden Lantern to the west, and the San Joaquin Hills Transportation Corridor (State Route [SR] 73) to the north and east. Table 2-1 below identifies the Statistical Summary for Community Profile Area 3.

Table 2-1. Community Profile Area 3 Statistical Summary

Subarea	Residential (dwelling units)			Commercial (square feet)		
	As of 01/01/06	General Plan Projection	Projected Growth	As of 07/01/10	General Plan Projection	Projected Growth
A. Rancho Niguel Center ^{1,2,3}	0	0	0	405,320	444,646	39,326
B. Rolling Hills	320	320	0	0	0	0
C. Colinas de Capistrano	660	695	35	0	0	0
D. Villa Mira	264	264	0	0	0	0
E. Aloma Avenue	174	204	30	0	0	0
F. Aloma Avenue Commercial ⁴	0	0	0	28,700	28,700	0
Total	1,418	1,483	65	434,020	473,346	39,326
	Population			Employment		
Total	3,332	3,484	153	748	1,157	409

¹ The Rancho Niguel Center currently contains a movie theater with 2,214 seats. The movie theater square footage is included in the commercial square footage above.

² The Rancho Niguel Center contains a gas station with car wash.

³ Administrative approval of Statistical Summary Amendment as part of SP 12-03P (Life Time Fitness) to reflect demolition of Expo Design building and net increase in Life Time Fitness building; PC Reso 12-08, 5/22/2012.

⁴ The Aloma Avenue subarea currently contains a service station.

The profile area has a rolling topography with extended views to the east and west. It is designated mainly for RD and Residential Attached (RA) housing. The existing homes in the profile area are well

established with large lots and mature landscaping. A network of riding, hiking, and equestrian trails providing linkages to park sites and open space in other areas of the City is located within the eastern portion of the profile area.

Within Community Profile Area 3, the project site is in Subarea C, Colinas de Capistrano. This area is designated RD and RA and consists of the neighborhoods of Sparrow Hill, Vista del Cerro, Villa de Cerise, and Country View Estates. The area currently includes 468 detached units and 192 attached units. The proposed project site is identified as a small portion of the RD area, which is undeveloped and projected at a maximum of 35 detached units. The profile also acknowledges known geotechnical constraints and the need for additional geotechnical investigation and remediation to support any structures being constructed in this area.

Existing Zoning

The site has an existing zoning designation of Single-Family District (RS-3), the purpose of which is to provide for the development and preservation of low- and medium-density neighborhoods with single-family residences on individual lots. The RS-3 residential development standards are detailed in Section 9-1-33 of the City of Laguna Niguel Zoning Code (LNZC). The existing zoning designations for the site and surrounding area are shown on Figure 2-5.

Proposed Project Description

Euland Capital Enterprises (applicant) proposes to change the land plan from a conventional 35-lot subdivision that encompasses the entire site to a terraced and clustered 71-lot gated subdivision that allows the majority of the property to remain landscaped open space and parks. A series of landscaped slopes and plantable mechanically stabilized earth (MSE) retaining walls separate the site into six terraced pad areas. The project plans also include two parks and dedication and improvement of the existing rough-graded regional multi-use trail segment, which traverses the northern boundary of the project site. The details of the project are described separately below for each proposed discretionary approval.

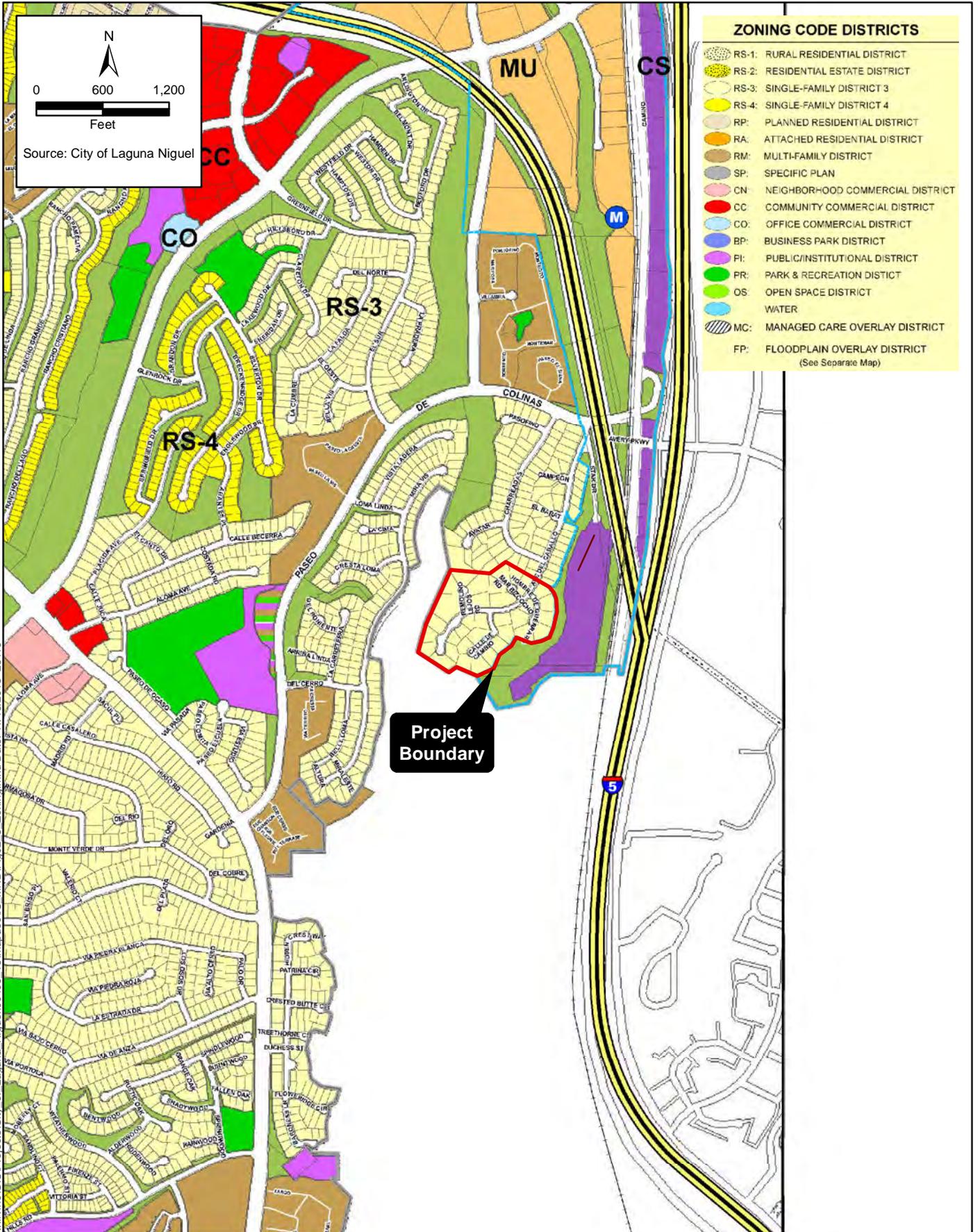
Additionally, the proposed project would provide an extension of the MNWD reclaimed water line approximately 0.25 mile north of the project site along Avenida del Caballo. The reclaimed water would be used for landscape irrigation of common spaces and parks.

General Plan Amendment

The proposed project includes a General Plan Amendment to increase the allowable density from 35 units to 71 units in Community Profile Area 3 and the Colinas de Capistrano subarea. The proposed project would change the density on the project site from 1.8 dwelling units per acre to 3.6 dwelling units per acre.

Zone Change

The project site is currently zoned R-3, which allows for low- and medium-density single-family residential. The minimum lot size in the R-3 zone is 3,000 square feet. The project proposes a Zone Change from the current RS-3 designation to Planned Residential (RP) District. The purpose of the zone change is to accommodate the clustered design, which uses different development standards to



K:\Irvine\GIS\Projects\City of Laguna Niguel\00406_15\mapdocs\IS_MND\Fig02_5_Zoning.mxd Date: 11/13/2015 25119



Figure 2-5
Existing Zoning
SunPointe Residential Project

cluster housing in certain portions of the site, allowing a majority of the site to remain open space. See Chapter 3, Section X, for analysis of land use and density.

Section 9-1-31.4 of the LNZN defines the RP District, the purpose and intent of which is to provide for the development and preservation of medium-density planned unit developments with attached homes, detached homes, or a mixture of both. Setbacks and other development standards are to be tailored specifically to each project by means of a precise development plan (per Section 9-1-33.2), which would be approved with the project and incorporated into the zoning code as an appendix.

Vesting Tentative Tract Map

VTTM 17433 proposes subdivision of the 19.5-acre site into 71 developable lots, in six grouped areas. The VTTM depicts in detail the proposed individual residential lot lines, locations of private streets, common area slopes, a multi-use trail to be irrevocably offered to the City, and a project boundary showing the relationship between the subject site and adjacent properties. VTTM 17433 would replace Tract 5241, approved in the County of Orange and recorded March, 1964.

Site Development Permit

The SDP contains the details of the project improvements and is shown on Figure 2-6. The proposed SDP depicts a private main street extending from the current end of Avenue del Caballo with curb-to-curb widths and street gradients that generally match the previously approved Final Map and existing street improvements. The residential cul-de-sacs that branch out from the main street occur in similar locations as in the previously approved Final Map and current improvements. The SDP demonstrates vehicular access in and around each cluster and shows the location of pedestrian walkways throughout the community as well as to each individual residence. The SDP meets the hammerhead criteria of the Orange County Fire Authority (OCFA) along with its brush management requirements.

The SDP depicts the changes in topography of the site. Generally, the site would be re-contoured to lower ground levels (cut) on the southern half of the site and raise ground levels (fill) on the northern portion of the site. The grading would include approximately 344,650 cubic yards of cut and 344,670 cubic yards of fill. Because the cut and fill would be close to equal amounts, the grading is considered balanced. Figure 2-7 depicts the areas of proposed cut and fill on the project site, including several data points depicting depth of cut and depth of fill to describe the change in topography. Grading of the project site would remove all existing improvements, including streets, curbs, and gutters. This would generate approximately 3,270 cubic yards of material. Instead of transporting that material to a landfill, the Applicant proposes to crush the concrete and asphalt on site and reuse the material either as base below proposed roadways or as select backfill behind retaining walls. The crushing operation would take approximately 7 working days. The crusher would be located as far from existing residences as possible, in the southeastern portion of the site. Crushed material would be stockpiled, covered, and protected from erosion.

The SDP specifies the 2:1 common area slopes to be under the ownership and maintenance of a future Home Owners Association (HOA). Several retaining walls up to a maximum of 26 feet are included in the proposed plan. The retaining walls are designed as a gravity wall system, such as an MSE wall, which is not a conventional vertical block retaining wall; instead, the walls are canted back at a slight angle and have layers of geo-grid that extend into the hillside. The weight of the slope on top of the geo-grid provides the walls' stability, which tends to be greater than a footing at

the bottom of a conventional retaining wall. Another benefit of an MSE wall is the wall includes a series of pockets that can be planted with vegetation. Once established, the vegetation can cover virtually all of the wall, minimizing its visibility.

The location and alignment of the proposed regional multi-use trail segment as depicted on the SDP is in the originally contemplated location, switchback shape, and width. The trail would be completed as part of the development and would encompass approximately 0.43 acre of the site. The trail would be dedicated to the City and would encompass a 16-foot easement with a minimum 10-foot tread.

The proposed SDP includes a vehicular entry gate. The building at the front of the entry gate would house the relocated MNWD pump station that currently sits at the top of the hill. The building would share the architectural character of the residential community. Access to residents would be provided through a transponder or similar system.

Two parks are proposed within the site. The first would consist of a 0.43-acre lot in the northeastern portion of the site, near the entry, that would feature an orange grove, built-in BBQs and sinks, soft seating areas, a two-sided fireplace, seat walls, dining pavilion, shade trellis, Bocce Ball court, and landscaping. The second park would consist of a 0.19-acre pocket park in the center of the development that would feature a tot lot, shade trellis and tables, seat walls, and landscaped areas. With the proposed parks and trail improvements, the total active recreational area to be provided on site is 1.05 acres.

The 71 residential lots would comprise approximately 5.25 acres, or 27% of the 19.5-acre site. Table 2-2 provides a land use summary of the proposed project.

Table 2-2. Land Use Summary

Lot #	Land Use	Acreage (acres)	% of Site
1-71	Single Family Residential	5.25	27%
72	Entry Gate and Pump Station	0.47	2%
73 and 74	Park	0.63	3%
A - G	Slope, Open Space, and Trail	9.75	50%
Streets	Streets and parking	3.42	18%
Total		19.52	100%

The proposed project includes a courtyard cluster design of residential lots, with four residential floor plans ranging in size from 2,032 square feet with 3 bedrooms and 2.5 bathrooms to 2,512 square feet with 4 bedrooms and 3 bathrooms. Structure size may vary but not exceed the available building footprint area as defined in the SDP. All structures would be two stories in height and include an enclosed two-car garage. The architectural design includes a contemporary style with a quaint appearance based on colors and materials. Residences would have front porches for visibility onto the courtyard parking areas that assist in observing activity in the neighborhood and socializing with neighbors. Each residential lot would include a private yard area, either at the rear or side of the structure depending on building orientation. Table 2-3 summarizes the proposed floor plans.



LEGEND

- PROJECT BOUNDARY
- W — W — PROPOSED WATER LINE
- S — S — PROPOSED SEWER LINE
- SD — SD — PROPOSED STORM DRAIN
- GAS — GAS — PROPOSED GAS LINE
- PROPOSED RIGHT OF WAY
- PROPOSED CENTERLINE
- PROPOSED CONTOUR LINE
- TOP OF SLOPE
- TOE OF SLOPE
- DAYLIGHT LINE
- RETAINING WALL
- PROPOSED EASEMENT
- EXISTING CONTOUR
- ① — LOT NUMBER
- PAD ELEVATION
- UNDERGROUND DETENTION FACILITIES
- CATCH BASIN
- FIRE HYDRANT
- CABLE TV LOWBOX
- CABLE TV PULLBOX
- TELEPHONE PULLBOX
- TERMINATOR PAD
- TRANSFORMER PAD
- FUSING CABINET

BENCHMARK INFORMATION

ORANGE COUNTY SURVEYOR BENCHMARK NO. 3MM-26-87
 ELEVATION: 426.489
 DATUM: NAVD 88, 1995 O.C.S. ADJUSTMENT

DESCRIPTION:
 DESCRIBED BY OCS 2003 - FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "3MM-26-87", SET IN THE SOUTHWESTERLY CORNER OF A 4 FT. BY 4 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE SOUTHEASTERLY CORNER OF THE INTERSECTION OF PASEO ESCUELA AND STREET OF THE GOLDEN LANTERN, 76.5 FT. EASTERLY OF THE CENTERLINE OF GOLDEN LANTERN AND 23 FT. SOUTHERLY OF THE CENTERLINE OF PASEO ESCUELA. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

EARTHWORK SUMMARY:

RAW VOLUME	CUT	FILL
REMOVAL & REPLACE	131,960 CYS	123,540 CYS
SLOPE STABILIZATION	121,490	121,490
WATER STORAGE EXCAVATION	77,000	77,000
7.5% SHRINKAGE	6,100	25,240
ESTIMATED SPILL DIRT - 100 CYS PER UNIT (71)	7,100	
CAISSONS - DISPLACEMENT VOLUME	700	
SUB-TOTAL	348,640 CYS	347,270 CYS
EXISTING ASPHALT BASE MATERIAL IF USED ONSITE (NOT INCLUDED IN THE RAW MATERIAL VOLUME TOTAL)	3,270 CYS	
ESTIMATED TOTAL	352,180 CYS	347,270 CYS
SUB-TOTAL	3,910 CYS	

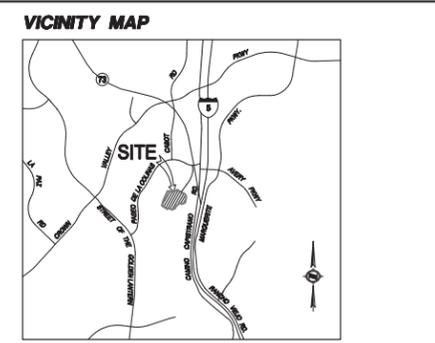
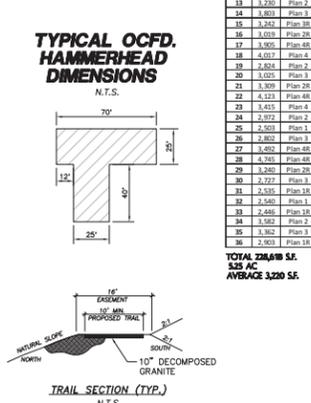
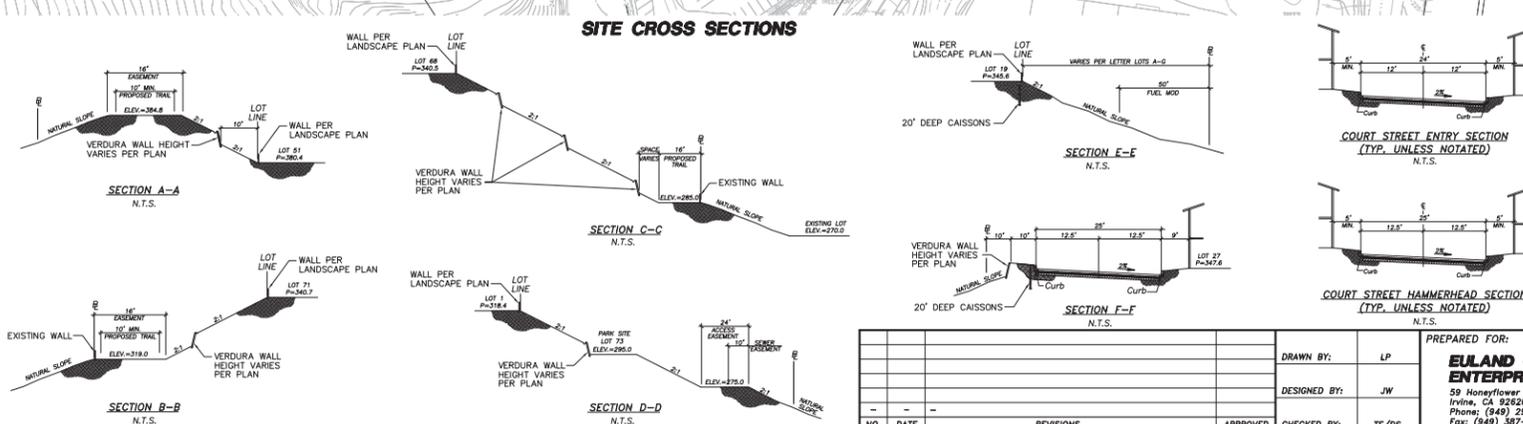
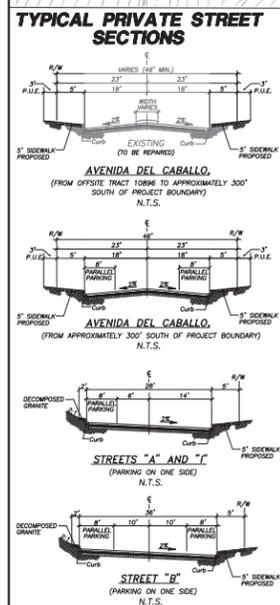
NOTE: QUANTITIES ARE APPROXIMATE, BASED ON CONCEPTUAL DESIGN.

OPEN SPACE LOT SUMMARY TABLE

Lot No.	S.F.	Acres
A	915,544	2.147
B	156,026	3.585
C	84,422	1.938
D	87,535	2.010
E	28,311	0.650
F	28,329	0.678
G	59,578	1.37
TOTAL	1,402,255	3.25

RESIDENTIAL LOT SUMMARY TABLE

Lot No.	S.F.	Plan Type	Lot No.	S.F.	Plan Type
1	3,088	Plan 1	37	3,079	Plan 3
2	2,451	Plan 1	38	2,998	Plan 3
3	2,520	Plan 1	39	2,950	Plan 3
4	2,245	Plan 1	40	2,950	Plan 1
5	1,915	Plan 2	41	4,007	Plan 2
6	3,492	Plan 2	42	2,536	Plan 3
7	3,723	Plan 1	43	2,907	Plan 1
8	3,214	Plan 2	44	3,330	Plan 2
9	2,472	Plan 1	45	3,189	Plan 1
10	2,420	Plan 1	46	4,381	Plan 1
11	3,254	Plan 2	47	2,984	Plan 1
12	3,883	Plan 2	48	2,478	Plan 1
13	3,328	Plan 1	49	2,904	Plan 1
14	3,803	Plan 1	50	3,154	Plan 3
15	3,251	Plan 2	51	3,100	Plan 3
16	3,071	Plan 2	52	4,274	Plan 3
17	3,500	Plan 2	53	4,000	Plan 3
18	3,007	Plan 2	54	3,100	Plan 2
19	3,850	Plan 1	55	3,080	Plan 2
20	3,025	Plan 1	56	2,421	Plan 1
21	3,309	Plan 2	57	2,423	Plan 2
22	4,121	Plan 2	58	3,905	Plan 2
23	3,435	Plan 4	59	3,836	Plan 2
24	3,077	Plan 1	60	3,800	Plan 4
25	2,503	Plan 1	61	3,008	Plan 2
26	2,802	Plan 1	62	2,465	Plan 3
27	3,420	Plan 2	63	2,421	Plan 1
28	4,761	Plan 2	64	2,848	Plan 2
29	3,240	Plan 2	65	2,724	Plan 1
30	2,272	Plan 1	66	3,268	Plan 2
31	2,535	Plan 1	67	3,220	Plan 3
32	2,540	Plan 1	68	2,615	Plan 1
33	2,449	Plan 1	69	3,262	Plan 3
34	3,582	Plan 2	70	3,138	Plan 2
35	3,362	Plan 1	71	4,228	Plan 4
36	2,901	Plan 1			
TOTAL	228,616				
AVERAGE	3,220				



- ### NOTES
- EXISTING LAND USE: 35 ROUGH GRADED SINGLE-FAMILY LOTS WITH PAVED STREETS AND EXISTING UTILITIES.
 - EXISTING ZONING: RS-3 (SINGLE-FAMILY RESIDENTIAL DISTRICT 3)
 - GENERAL PLAN LAND USE DESIGNATION: RESIDENTIAL DETACHED
 - PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL - 71 DWELLING UNITS.
 - PROPOSED ZONING: RP-PLANNED RESIDENTIAL DEVELOPMENT
 - ALL GRADING SHALL CONFORM TO THE CITY OF LAGUNA NIGUEL GRADING AND EXCAVATION CODE.
 - ON-SITE DRAINAGE SHALL CONFORM TO THE CITY OF LAGUNA NIGUEL HYDROLOGY MANUAL.
 - PROPOSED WATER AND SEWER IMPROVEMENTS SHALL BE INSTALLED PER MOULTON NIGUEL WATER DISTRICT STANDARD DRAWINGS.
 - WATER AND SEWER SERVICE TO BE PROVIDED BY MOULTON NIGUEL WATER DISTRICT.
 - GAS SERVICE TO BE PROVIDED BY SAN DIEGO GAS AND ELECTRIC.
 - ELECTRIC SERVICE TO BE PROVIDED BY SAN DIEGO GAS AND ELECTRIC.
 - TELEPHONE SERVICE TO BE PROVIDED BY ATX/COX COMMUNICATIONS.
 - CABLE TELEVISION SERVICE TO BE PROVIDED BY COX COMMUNICATIONS.
 - THE PROJECT SITE IS LOCATED WITHIN CAPISTRANO UNIFIED SCHOOL DISTRICT.
 - ASSESSOR'S PARCEL NUMBERS: 637-071-1 THROUGH 637-071-36
 - ALL EXISTING ONSITE UTILITIES WILL BE REMOVED OR REPLACED DURING PROJECT CONSTRUCTION.
 - PERMISSION SHALL BE OBTAINED FROM ADJACENT PROPERTY OWNER FOR OFFSITE GRADING, IF NECESSARY.
 - FLOOD ZONE: ZONE X (SOURCE: WEBSITE REVIEWED 12-19-2004 - FEMA'S NATIONAL FLOOD HAZARD LAYER, PANEL 060590411) (EFF: 12/03/2009)
 - FUEL MODIFICATION AREAS AS IDENTIFIED IN THE FIRE MASTER PLAN.
 - HOA MAINTAINS ALL LETTERED LOTS AND LOTS 72-75 EXCEPT WHERE UTILITY COMPANIES MAINTAIN EASEMENTS.
 - ALL STREETS ARE PRIVATE RIGHT OF WAY AND NOT PUBLIC STREETS. HOA MAINTAINS SUNPOINTE STREETS.

SLOPE MAINTENANCE DESIGNATIONS:

- (A) MAINTAINED BY A PUBLIC AGENCY
- (B) MAINTAINED BY THE HOMEOWNERS ASSOCIATION
- (C) MAINTAINED BY INDIVIDUAL HOMEOWNER

LAND USE SUMMARY TABLE

LOT	ACREAGE	LAND USE
1-71	5.25	SINGLE FAMILY RESIDENTIAL
72	0.47	ENTRY GATE HOUSE/ANWD PUMP STATION
73	0.39	PARK
74	0.19	PARK
A	2.14	MANUFACTURED SLOPE/OPEN AREA/REGIONAL TRAIL/ACCESS ROAD
B	1.28	MANUFACTURED SLOPE/OPEN AREA
C	1.94	MANUFACTURED SLOPE/OPEN AREA
D	2.01	MANUFACTURED SLOPE/OPEN AREA/ANWD EASEMENT
E	0.65	OPEN SPACE/REGIONAL TRAIL
F	0.48	MANUFACTURED SLOPE/OPEN AREA
G	1.37	MANUFACTURED SLOPE/OPEN AREA
STREETS	3.42	STREET/ROW/COURTYARDS/PARKING
TOTAL	19.52	

- ### PROPOSED EASEMENTS:
- A PROPOSED EASEMENT FOR REGIONAL TRAIL PURPOSES TO BE DEDICATED TO THE COUNTY OF ORANGE.
 - A PROPOSED EASEMENT FOR WATER AND SEWER PIPELINES, PUBLIC UTILITY AND ACCESS PURPOSES IN FAVOR OF MOULTON NIGUEL WATER DISTRICT.
 - A PROPOSED EASEMENT FOR INGRESS, EGRESS, EMERGENCY AND PUBLIC SERVICE VEHICLES PURPOSES.
 - A PROPOSED EASEMENT FOR PUBLIC UTILITIES PURPOSES.
 - A PROPOSED EASEMENT FOR INGRESS AND EGRESS FOR NATIVITY SCENE ACCESS AND ACCESS MAINTENANCE.

LEGAL DESCRIPTION

IN THE CITY OF LAGUNA NIGUEL, COUNTY OF ORANGE, STATE OF CALIFORNIA, BEING ALL OF TRACT NO. 5241, AS SHOWN ON A MAP FILED IN BOOK 198, PAGES 13 THROUGH 16 INCLUSIVE OF MISCELLANEOUS MAPS, RECORDS OF ORANGE COUNTY, CALIFORNIA.

STATEMENT OF OWNERSHIP

I HEREBY STATE THAT THIS MAP WAS PREPARED UNDER MY SUPERVISION AND THAT THE OWNER OF RECORD HAS KNOWLEDGE OF AND CONSENTS TO THE FILING OF THIS MAP.

DOUGLAS L. STALEY _____ DATE _____

DATE	REVISION	BY

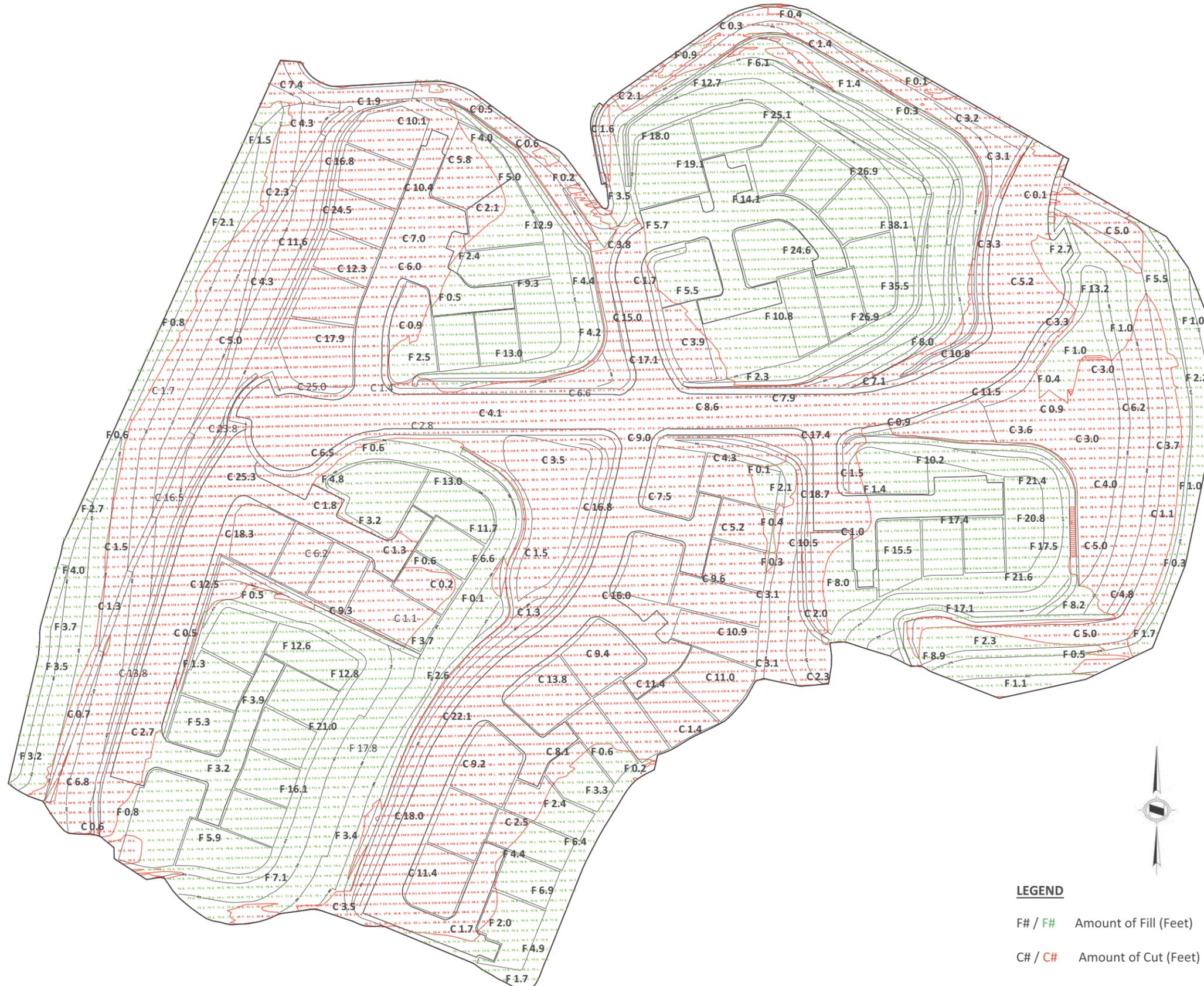
SCALE: 1" = 60'
 DATE: 01/20/15
 W.C.: 2950-S
 CROSS AREA: 1952 AC
 CONTOUR INTERVAL: 1'
 TOTAL LOTS: 85 NUMBERED, 7 LETTERED

PREPARED FOR: **EULAND CAPITAL ENTERPRISES, LP.**
 59 Honeyflower Irvine, CA 92620 Phone: (949) 293-2246 Fax: (949) 587-0933

PREPARED BY: **HUNSAKER & ASSOCIATES IRVINE, INC.**
 PLANNING • ENGINEERING • SURVEYING
 Three Hughes • Irvine, CA 92618 • PH: (949) 583-1070 • FX: (949) 583-0759

SunPointe
 VESTING TENTATIVE TRACT NO. 17433
 City of Laguna Niguel

SHEET **C-1**



LEGEND

F# / F# Amount of Fill (Feet)

C# / C# Amount of Cut (Feet)

Table 2-3. Floor Plan Summary

Plan	Living Area (square feet)	Units	Percentage	Bedrooms	Bathrooms
Plan 1	2,032	22	31%	3	2.5
Plan 2	2,253	21	30%	4	3
Plan 3	2,326	15	21%	4	3
Plan 4	2,512	13	18%	4	3
Total		71	100%		

In addition to providing project details, the SDP provides a means to evaluate several entitlements and alternate development standards. The following entitlements are included in the SDP Application.

- Grading in Excess of 5,000 cubic yards: Grading projects in excess of 5,000 cubic yards require approval of an SDP to evaluate the grading operation and change in topography. The proposed grading is described above.
- Precise Plan: As part of the SDP, the applicant proposes specific site development standards, including setbacks. The proposed project includes a detached courtyard cluster design with a center motor court that serves generally six or more lots. The arrangement of the lots around the motor court deviates from traditional front and rear yard setbacks. Therefore, specific setbacks are established through a Precise Plan.
- Gate-guarded Neighborhood: Gated neighborhoods with private streets require separate discretionary approval handled through an SDP. The design of the gates, including the turn-around in front of the gates and stacking distance to a connecting street, are analyzed through the SDP.
- Alternative Parking Plan: The proposed project would provide 261 parking spaces, including 142 garage spaces, 40 parking stalls, and 79 street parking spaces, at a ratio of 3.7 spaces per unit. The proposed project exceeds the 249 parking spaces required by the LNZN at a ratio of 3.5 spaces per unit. However, an Alternative Parking Plan is being requested to deviate from the baseline standard pertaining to the distance of guest parking from residences. The request is necessary to meet the project objectives while addressing the unique site challenges, such as clustering the units, and providing an “autocourt” design. The requested alternate standards would allow for:
 1. Some guest parking to be located in excess of 100 feet from the unit served.

Furthermore, on-street parking would be permitted to satisfy the requirement of one additional parking space per unit (two garage spaces per unit also provided).
- Alternative Height Standard: According to Section 9-1-33.4 of the LNZN, height limits are measured from the lower of existing grade or finished grade. Due to the proposed grade changes for the site to accommodate geotechnical remediation, some of the proposed building heights would exceed the City’s baseline height standard of 35 feet from existing grade. It should be noted that the structures themselves would not exceed 35 feet from finished grade. Because this section of the LNZN measures height from existing grade and does not account for topographic changes to a project site, the Applicant requests the height standard of 35 feet be applied from

future grade, not existing grade, to account for topographic changes necessary for geotechnical stabilization.

Minor Adjustment

Section 9-1-114.5 of the LNZC permits minor adjustments to adopted development standards. The purpose of minor adjustments is “to provide for certain minor deviations from certain specific development standards set forth in this code. Minor adjustments have little or no potential for adverse impacts on the surrounding community and are reviewed administratively.”

The proposed project includes a request for a minor adjustment to permit retaining walls in excess of 12 feet. In order to accomplish the geotechnical remediation and corresponding change in topography to create terraced building pads, the Applicant proposes the use of a gravity retaining wall system, such as an MSE wall, within the interior of the project site. MSE walls are designed with integrated planting pockets that can support vegetation growth to screen the visibility of the wall.

Phasing

Site development and grading would occur in a single phase. Demolition of existing improvements, grading, and installation of subdrains, hydraugers, and groundwater wells would all occur in a single phase lasting approximately 9 months of construction. Following grading, installation of streets and all infrastructure would be installed in one phase over the entire site. Home construction would occur in five phases, generally, from the north near the entry toward the southern portion of the site. The full buildout is expected to occur within 1 year, but is dependent upon market conditions.

Required Discretionary Approvals

The City of Laguna Niguel is the lead agency under CEQA and is responsible for permitting the project. The following discretionary approvals would be required to implement the project as proposed.

- Adopt the Mitigated Negative Declaration, Mitigation Monitoring and Reporting Program, and Mandatory Findings of Significance.
- Approve the General Plan Amendment GPA 14-01.
- Approve the Zone Change ZC 14-02 (SunPointe).
- Approve the Site Development Permit SP 12-07.
- Approve the Vesting Tentative Tract Map TT 17433.
- Approve the Minor Adjustment MA 15-09.

Chapter 3

Environmental Analysis

1. Project Title: SunPointe Residential Project
2. Lead Agency Name and Address: City of Laguna Niguel, Community Development Department
30111 Crown Valley Parkway
Laguna Niguel, CA 92677
3. Contact Person and Phone Number: Jonathan Orduna, Senior Planner
(949) 362-4357
jorduna@cityoflagunaniguel.org
4. Project Location: The project site encompasses 19.5 acres in the City of Laguna Niguel within Orange County, California. The site is located in the Colinas de Capistrano Community Planning Area and accessible through an existing neighborhood at the southern terminus of Avenida del Caballo. The assessor's parcel numbers are 637-071-1 through 637-071-36. See Chapter 2 for additional details.
5. Project Sponsor/Applicant Name and Address: Euland Capital Enterprises
59 Honeyflower
Irvine, CA 92620
6. Existing General Plan Designation: Residential Detached (RD)
7. Existing Zoning: RS-3
8. Description of Project: The proposed project would involve the development of up to 71 small-lot, single-family residences on a 19.5-acre hillside in the northeastern portion of the City of Laguna Niguel. Implementation of the proposed project would require the City Council to approve: (1) a General Plan Amendment, (2) a Zone Change, (3) a Vesting Tentative Tract Map, (4) a Site Development Permit, and (5) a Minor Adjustment. See Chapter 2 for additional details.
9. Surrounding Land Uses and Setting: Country View Estates residential development, Mercedes Benz of Laguna Niguel, Rancho Capistrano and Saddleback Church, open space.
10. Other Public Agencies Whose Approval Is Required: None anticipated.

Environmental Factors Potentially Affected

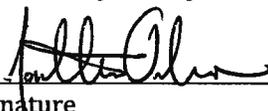
The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

Determination

On the basis of this initial evaluation:

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



 Signature

6/15/16

 Date

Jonathan Orduna

 Printed Name

City of Laguna Niguel

 For

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. “Negative Declaration: Less than Significant with Mitigation Incorporated” applies when the incorporation of mitigation measures has reduced an effect from a “Potentially Significant Impact” to a “Less-than-Significant Impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level.
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where earlier analyses are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less than Significant with Mitigation Incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.

9. The explanation of each issue should identify:
 - a. the significance criteria or threshold, if any, used to evaluate each question; and
 - b. the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

I. Aesthetics	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Visual Conditions

Laguna Niguel is in southern Orange County, approximately 50 miles south of downtown Los Angeles and 65 miles north of downtown San Diego. The 14.72-square-mile planned community consists of residential neighborhoods, parks, and supporting commercial businesses with a distinct coastal orientation.

The project site is in Community Profile Area 3 of the Laguna Niguel General Plan (LNGP), which consists of 526 acres in the northeastern area of Laguna Niguel. It has a rolling topography with extended views to the east and west. The area is dominated by residential detached and residential attached housing, with a large concentration of commercial uses within the Rancho Niguel Center at the intersection of Crown Valley Parkway and Greenfield Drive.

The project site is located within a suburban setting on an east-facing hillside, bound on the north by the Country View Estates residential development, on the east by Mercedes Benz of Laguna Niguel, on the south by a slope descending to Rancho Capistrano and Saddleback Church, and on the west by an open space slope and the Mira Vista residential neighborhood. The project site is the only property in the Colinas de Capistrano sub-profile, which also includes the communities of Sparrow Hill, Vista del Cerro, Villa de Cerise, and Country View Estates, that has projected future growth.

Residential communities in the project area tend to hug hilltops, leaving steeper and undevelopable slopes as open space. These more natural elements of the suburban landscape combine with developed open space, low-lying commercial buildings, and major freeways to form the viewshed of the project area.

Existing visual conditions at the project site comprise an undeveloped site that has been previously disturbed through past grading efforts. The project site has paved streets, curbs, gutters, manufactured slopes, and a rough-graded trail segment. The site also includes existing underground and above-ground utilities.

Designated Scenic Resources

According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, there are no state designated scenic highways near the project site. Notwithstanding, the Open Space Element of the LNGP identifies citywide scenic highway routes that are consistent with the County of Orange Master Plan of Scenic Highways. The Scenic Highway Plan defines two types of scenic highways: Viewscape Corridors and Landscape Corridors. There are no designated Viewscape corridors in Laguna Niguel. The Open Space Element does identify Landscape Corridors, which are meant to have special landscape treatment to provide a pleasant driving experience. Development within the corridors should serve to complement the Landscaped Corridors. The nearest designated Landscape Corridor is Street of the Golden Lantern, which is approximately 0.4 mile southwest of the project site. The project site is not visible from Street of the Golden Lantern, and therefore the design criteria associated with a Landscape Corridor do not apply to the project site.

Viewer Groups and Other Scenic Resources

Viewer groups are broadly characterized as having public or private views. Public views are available to all visual receptors, such as views from a neighborhood park or public roadway. Private views, however, are exclusive to property owners and their guests or members, and include places such as residences and private facilities (e.g., religious institutions or HOA community areas).

Public views of the project site are available from Interstate (I) 5, SR-73, Avenida del Caballo, and Via Escolar. Private views of the site are available from existing single-family residences along the north and west project boundaries and the Mercedes Benz dealership located east of the project site. As viewers increase in distance from the site, views diminish, become more obstructed, and ultimately become unavailable. Figures 3-1a through 3-1d show existing views of the project site from the above-noted locations.

Planning Goals, Objectives, and Policies

Local planning and regulatory documents can identify visual resources that should be protected or considered during future discretionary actions. As such, a review of the LNGP and LNZN was conducted, and any goals, objectives, policies, or other designations related to preservation of aesthetic or visual resources are included below.

City of Laguna Niguel General Plan

Land Use Element

- Policy 3.4 Ensure that residential densities are compatible with the surrounding land uses and buildings are in scale with the neighborhood character.

Open Space/Parks/Conservation Element

- Policy 1.1 Preserve and protect the scenic and visual quality of areas designated for Open Space areas as a resource of public importance.
- Policy 1.2 When siting a proposed development project, locate the project in areas containing less sensitive landforms and preserve the most sensitive landforms and natural resources of the project site as open space.



Existing View from Mercedes Benz Dealership Looking West



Existing View from Roof of Mercedes Benz Dealership Looking West

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Figure 3-1a
Existing Views of Project Site
SunPointe Residential Project



Existing View from Via Escolar Looking West



Existing View from Avenida Del Caballo Looking Southwest

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Figure 3-1b
Existing Views of the Project Site
SunPointe Residential Project



Existing View from Charreadas Looking South



Existing Aerial View from Mira Vista Residential Development Looking Southwest

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Figure 3-1c
Existing Views of the Project Site
SunPointe Residential Project



Existing View from Terminus of Avenida Del Caballo Looking West

- Policy 6.1 Provide for the preservation of sensitive hillside and canyon areas in accordance with the City's Hillside Protection Ordinance.

City of Laguna Niguel Zoning Code

- Section 9-1-33.4 Building Height: Thirty-five (35) foot maximum.
- Section 9-1-33.6 Setback from tops and toes of slopes 2:1 or steeper and over 10 feet high: 10 foot minimum.

Impact Analysis

Would the project:

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

No Impact. The project site does not constitute a scenic vista. The site is at an elevation between 250 and 455 feet above mean sea level and is surrounded by development (e.g., commercial facilities and other residential developments). The project site has been graded to form terraced building pads, and infrastructure, including paved streets, has been installed. As such there are no scenic vistas identified on the project site or within the surrounding areas. Furthermore, the proposed project would not block views of scenic vistas from public vistas. While the immediate surrounding area does not contain scenic vistas, the trail at the top of the ridge to the west may have views of Santiago Peak and the Santa Ana Mountains. Because the elevation of the project site is much lower than the ridge to the west, the proposed project would not have any impact on distant views of the Santa Ana Mountains. No impact would occur.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

No Impact. The proposed project is not adjacent to or near a scenic highway. As noted above, the nearest designated scenic highway is about 3.5 miles south of the project, and no views to or from a scenic highway would be available. No impacts would occur.

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

Less-than-Significant Impact. The proposed project would not substantially degrade the existing visual character or quality of the site or surrounding areas. The current visual setting is composed of a site that has been previously disturbed through past grading efforts. The project site has paved streets, curbs, gutters, manufactured slopes, and a rough-graded trail segment. The site also includes existing underground and above-ground utilities. The project site is located in a suburban setting and bound by residential developments to the north and west, the Mercedes Benz of Laguna Niguel dealership and Rancho Capistrano and Saddleback Church to the east and southeast, and open space to the south and west. No significant visual resources occur on the site or near the project site. As described above, the project site is at an elevation between 250 and 455 feet above mean sea level and views of the project site are limited to immediately surrounding areas.

Approval of the proposed project would result in the construction of a residential subdivision on a site that was previously graded for a residential subdivision long before the surrounding neighborhoods were constructed. Figures 3-2a through 3-2d show simulations of the proposed residential development on the site. The substantive difference between the aesthetic character of the existing conditions and the proposed project would be the development of residential uses on

currently vacant land and associated landform changes due to project grading. However, the project site is designated and zoned for residential uses and has historically been planned for residential development.

To accommodate the proposed clustered building pads and to address site geotechnical constraints, substantial landform alteration would occur that would involve removing the previous improvements and re-grading the site as part of the geotechnical remediation. Generally, grades at the upper portion of the site would be lowered and grades at the lower portion of the site would be raised. Additionally, the Applicant proposes to use MSE walls instead of traditional retaining walls because MSE walls are a type of gravity retaining wall system that is sloped at a slight angle and includes integrated pockets that can be planted. Once established, the entire wall can be covered with vegetation, which dramatically reduces the visibility of the walls. See Section VI, *Geology and Soils*, for more details on slope stability and grading.

According to the City's development standards for residential structures found in Section 9-1-33.4 of the LNZN, height limits are measured from the lower of existing grade or finished grade. Due to the proposed grade changes for the site, some of the proposed building heights would exceed the City's baseline height standard of 35 feet from existing grade. However, it should be noted that the structures themselves would not exceed 35 feet from finished grade. The proposed project includes a request for an alternative development standard for height as part of the SDP. A project may be approved with alternative standard(s) in conjunction with an SDP application when certain findings are made pursuant to Section 9-1-114.1 of the LNZN. Among these findings is that the project is compatible with surrounding uses, and the use of the alternate development standard(s) will result in a project design superior to that under the baseline development standards.

The proposed project meets the findings set forth in Section 9-1-33.4 of the LNZN as a superior design for the following reasons.

- Re-grading of the site would help to stabilize the hillside by putting more weight at the bottom of the slope.
- Re-grading of the site would allow for clustering the residences onto smaller building pads, which would retain the majority of the site in open space (approximately 5.25 acres of the 19.5-acre site would be developed with residences).
- The proposed grading would increase the vertical separation between the proposed residences and the abutting Country View Estates neighborhood, providing increased privacy.
- The proposed grading plan would also increase the vertical separation from Mercedes Benz of Laguna Niguel, minimizing land use conflicts related to aesthetics, light and glare, and noise.
- The proposed project would reduce light glare from the Mercedes dealership for the Country View Estates neighborhood.
- The proposed project is compatible with the surrounding residential uses and would blend in with the existing visual character of the area.

Therefore, the project is not anticipated to degrade the existing visual character or quality of the site or its surroundings. Impacts related to the visual quality of the project site and its surroundings would be less than significant.



Simulated View from Mercedes Benz Dealership Looking West



Simulated View from Roof of Mercedes Benz Dealership Looking West

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Figure 3-2a
Proposed Project Visual Simulations
SunPointe Residential Project



Simulated View from Via Escolar Looking West



Simulated View from Avenida Del Caballo Looking Southwest

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Figure 3-2b
Proposed Project Visual Simulations
SunPointe Residential Project



Simulated View from Charreadas Looking South



Simulated Aerial View from Mira Vista Residential Development Looking Southwest

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Figure 3-2c
Proposed Project Visual Simulations
SunPointe Residential Project



Simulated View from Terminus of Avenida Del Caballo Looking West

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Figure 3-2d
Proposed Project Visual Simulations
SunPointe Residential Project

d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Less-than-Significant Impact. The project is located in a suburban setting. The project site is surrounded by a developed environment with fixed and mobile sources of exterior light and glare. Fixed sources of light and glare include exterior building-mounted and freestanding light fixtures, illuminated signage on existing land uses, and street lighting along local streets near the project. Additionally, mobile sources of light and glare originate from vehicles along the San Joaquin Hills Transportation Corridor (SR-73) and I-5 freeway. These existing light sources contribute to moderate levels of nighttime lighting.

The proposed project would involve installation of nighttime lighting for roadway visibility and safety; however, as described above, the surrounding area is largely developed with existing nighttime lighting, and local roadways include mobile light sources. Direct views onto the project site would be from surrounding areas that already experience views from surrounding development, and the project would not adversely affect daytime or nighttime views in the area. Furthermore, lighting improvements would be required to comply with the design standards outlined in LNZN Section 9-1-279, Street Lighting, which requires street lighting along and at the intersections of all arterial highways and local streets in accordance with the illumination levels specified in the standard plans. Lastly, the presence of intervening vegetation, structures, and ridgeline topography would diminish or block direct sightlines to the project site and reduce glare in some locations. Impacts related to the creation of new sources of substantial light or glare would be less than significant.

II. Agriculture and Forestry Resources	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
<p>In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project, the Forest Legacy Assessment project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
<p>a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d. Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Under the California Land Conservation Act of 1975 (Williamson Act) and the Farmland Mapping and Monitoring Program (FMMP), farmlands are mapped by the State of California Department of

Conservation in order to provide data for decision-makers to use in planning for current and future uses of the state's agricultural lands. Neither the project site nor any parcels within the project vicinity are considered Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance (Atkins 2011); the project site does not contain any land subject to a Williamson Act contract. No farming is present on site or on the parcels surrounding the project site.

The site currently has a General Plan designation of RD. The surrounding land use designations include RD to the north, Community Commercial to the east, and two areas of Open Space, one to the south/southeast and the other to the north. The property directly west of the project site is located in the City of San Juan Capistrano and designated General Open Space. Bordering the site to the south in the City of San Juan Capistrano, the area is designated LU 9.6 PC, which is a Planned Community designation.

Impact Analysis

Would the project:

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

No Impact. The proposed project is within the Colinas de Capistrano (Community Planning Area 3) sub-profile area and is currently vacant. The FMMP designates the project site as Urban/Built-up and Other Land on its California Important Farmlands Finder map for Orange County. The map does not identify the project site as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Atkins 2011). Therefore, the proposed project would not convert any such farmland to non-agricultural use; no impact on farmland would occur.

- b. *Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?***

No Impact. The project site is currently vacant, having been previously disturbed by prior grading activities, with existing underground and above-ground utilities. Neither the project site nor any parcels within the project vicinity are zoned for agricultural use or subject to any Williamson Act contracts. Therefore, the proposed project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract, and no impact would occur.

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

No Impact. As described, the project site is currently zoned RS-3, which designates the area for planned residential development. No land zoned as forest land or timberland exists within the proposed project boundaries. The proposed project would not conflict with existing zoning for forest land or timberland; no impact would occur.

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

No Impact. As discussed in II.c, no land zoned as forest land or timberland exists within the proposed project boundaries. Approval of the proposed project would not result in the loss of forest land or conversion of forest land to other uses; no impact would occur.

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

No Impact. See II.a. No agricultural land uses, forest land, or timberland exist in the vicinity of the proposed project, and the proposed project site is currently vacant land that has been graded and contains existing underground and above-ground utilities. The proposed project would develop the site with 71 small-lot, single-family residences on approximately 19.5 acres. The proposed project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or forest land to non-forest use; no impact would occur.

III. Air Quality	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
When 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. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site is within the South Coast Air Basin (Basin), an area covering approximately 6,745 square miles and bounded by the Pacific Ocean to the west and south and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Basin, which is a coastal plain with connecting broad valleys and low hills.

Local Air Quality

The South Coast Air Quality Management District (SCAQMD), which has divided the Basin into air monitoring areas, maintains a network of air quality monitoring stations throughout the Basin. The project site is located in the Central Orange County Coastal area (Source Receptor Area [SRA] 20). The nearest monitoring station is the Mission Viejo station (ARB 30002), approximately 6 miles north of the proposed project. Criteria pollutants monitored at the Mission Viejo station include ozone (O₃), carbon monoxide (CO), and particulate matter less than or equal to 2.5 micrometers in diameter (PM_{2.5}) and 10 micrometers in diameter (PM₁₀). Because nitrogen dioxide (NO₂) is not measured at the Mission Viejo station, NO₂ monitoring data from the next closest station, Costa Mesa – Verde Drive station (ARB 30195), is presented.

Concentrations of pollutants over the last 3 years (2012–2014) have been compiled from the stations' data (see Table 3-1). Monitoring data show that O₃ concentrations have exceeded the California Ambient Air Quality Standard (CAAQS) and National Ambient Air Quality Standard (NAAQS) during each of the previous 3 years. No violations of the CO, PM₁₀, PM_{2.5}, or NO₂ CAAQS or NAAQS were recorded.

Table 3-1. Ambient Background Concentrations from the Mission Viejo Station (ARB 30002), and Costa Mesa – Verde Drive Station (ARB 30195)

Pollutant Standards	2012	2013	2014
1-Hour Ozone (O₃)			
Maximum Concentration (ppm)	0.096	0.104	0.115
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour (> 0.09 ppm)	2	2	4
8-Hour Ozone (O₃)			
State Maximum Concentration (ppm)	0.079	0.082	0.088
National Maximum Concentration (ppm)	0.078	0.082	0.088
National Fourth-Highest Concentration (ppm)	0.071	0.074	0.079
<i>Number of Days Standard Exceeded</i>			
CAAQS 8-hour (> 0.070 ppm)	6	5	10
NAAQS 8-hour (> 0.075 ppm)	1	2	5
Carbon Monoxide (CO)			
Maximum Concentration 1-hour Period (ppm)	1.32	N/A	N/A
Maximum Concentration 8-hour Period (ppm)	0.79	N/A	N/A
<i>Number of Days Standard Exceeded</i>			
NAAQS 8-hour (≥ 9 ppm)	0	N/A	N/A
CAAQS 8-hour (≥ 9.0 ppm)	0	N/A	N/A
NAAQS 1-hour (≥ 35 ppm)	0	N/A	N/A
CAAQS 1-hour (≥ 20 ppm)	0	N/A	N/A
Nitrogen Dioxide (NO₂) (Costa Mesa – Verde Drive Station)			
Maximum 1-hour Concentration (ppm)	0.0744	0.0757	0.0606
Annual Average Concentration (ppm)	N/A	N/A	0.0101
<i>Number of Days Standard Exceeded</i>			
CAAQS (0.18 ppm)	0	0	0
NAAQS (0.100 ppm)	0	0	0
Suspended Particulates (PM₁₀)			
Maximum State 24-hour Concentration (µg/m ³)	36	50	40
Maximum National 24-hour Concentration (µg/m ³)	37	51	41
State Annual Average Concentration (CAAQS = 20 µg/m ³)	17	19	20
<i>Number of Days Standard Exceeded (Estimated)</i>			
CAAQS 24-hour (> 50 µg/m ³)	0	0	0
NAAQS 24-hour (> 150 µg/m ³)	0	0	0

Pollutant Standards	2012	2013	2014
Suspended Particulates (PM2.5)			
Maximum 24-hour Concentration ($\mu\text{g}/\text{m}^3$)	27.6	28.0	25.5
24-hour Standard 98 th Percentile ($\mu\text{g}/\text{m}^3$)	17.6	17.5	21.6
National Annual Average Concentration ($\mu\text{g}/\text{m}^3$)	7.9	8.0	8.0
State Annual Average Concentration ($\mu\text{g}/\text{m}^3$)	7.9	8.1	N/A
<i>Number of Days Standard Exceeded (Estimated)</i>			
NAAQS 24-hour ($> 35 \mu\text{g}/\text{m}^3$)	0	0	0

Sources: California Air Resources Board 2015. Data compiled by ICF International.

ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter;
> = greater than; > = greater than or equal to; N/A = data not available

Local Health Risk

SCAQMD recently completed an ambient air monitoring and evaluation study in the Basin (i.e., the Multiple Air Toxics Exposure Study IV [MATES IV] study) in May 2015. MATES IV was a follow up to previous air toxics studies in the Basin and part of the SCAQMD Governing Board's Environmental Justice Initiative. The MATES IV study concluded that the average carcinogenic risk throughout the Basin, which was attributed to toxic air contaminants (TACs), is approximately 1,023 in one million. Mobile sources (e.g., cars, trucks, trains, ships, aircraft) are the greatest contributors. About 68% of all risk is attributed to diesel particulate matter (DPM) emissions (SCAQMD 2015). According to MATES IV, the project area is within a cancer risk zone of approximately 189 in one million (SCAQMD 2015).

Sensitive Receptors and Locations

SCAQMD defines sensitive receptor locations as residential or other locations where sensitive populations may be located. Other sensitive receptor locations include schools, hospitals, convalescent homes, day care centers, and other locations where children, chronically ill individuals, or other sensitive persons could be exposed (SCAQMD 2005). The project is in an area that is primarily residential, with commercial uses to the east and open space to the south. Existing residences are located immediately north and west of the project site.

Regulatory Setting

Federal

The Clean Air Act (CAA) was first enacted in 1963 but has been amended numerous times in subsequent years (1967, 1970, 1977, and 1990). The CAA establishes the NAAQS and specifies future dates for achieving compliance. The CAA also mandates that the states submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met. The project area is within a basin that is designated as a nonattainment area for certain pollutants that are regulated under the CAA.

The 1990 amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones.

The sections of the CAA that would most substantially affect development of the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. Table 3-2 shows the NAAQS currently in effect for each criteria pollutant. The Orange County portion of the Basin fails to meet national standards for O₃ and PM_{2.5} and therefore is considered a federal nonattainment area for those pollutants. Table 3-3 lists each criteria pollutant and its related attainment status in Orange County.

Table 3-2. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS ^a	NAAQS ^b
Ozone (O ₃)	1 hour	0.09 ppm ^c	--
	8 hour	0.070 ppm	0.075 ppm
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm
	8 hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	100 ppb
	Annual Arithmetic Mean	0.030 ppm	53 ppb
Sulfur Dioxide (SO ₂)	1 hour	0.25 ppm	75 ppb
	24 hour	0.04 ppm	0.14 ppm
Respirable Particulate Matter (PM ₁₀)	24 hour	50 µg/m ³ ^c	150 µg/m ³
	Annual Arithmetic Mean	20 µg/m ³	--
Fine Particulate Matter (PM _{2.5})	24 hour	--	35 µg/m ³
	Annual Arithmetic Mean	12 µg/m ³	12.0 µg/m ³
Sulfates	24 hour	25 µg/m ³	--
Lead (Pb)	30 day average	1.5 µg/m ³	--
	Calendar quarter	--	1.5 µg/m ³
	Rolling 3-Month Average	--	0.15 µg/m ³
Hydrogen Sulfide	1 hour	0.03 ppm	--
Vinyl Chloride	24 hour	0.01 ppm	--

Source: California Air Resources Board 2013.

^a The California Ambient Air Quality Standards for O₃, CO, SO₂ (1-hour and 24-hour), NO₂, PM₁₀, and PM_{2.5} are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

^b The NAAQS, other than O₃ and those based on annual averages, are not to be exceeded more than once a year. The O₃ standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than 1.

^c ppm = parts per million by volume; ppb = parts per billion; µg/m³ = micrograms per cubic meter.

Table 3-3. Federal and State Attainment Status for Orange County Portion of the South Coast Air Basin

Pollutants	Federal Classification	State Classification
Ozone (O ₃) (1-hour standard)	--	Nonattainment
Ozone (O ₃) (8-hour standard)	Nonattainment, Extreme	Nonattainment
Respirable Particulate Matter (PM ₁₀)	Attainment/Maintenance	Nonattainment
Fine Particulate Matter (PM _{2.5})	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment/Maintenance	Attainment
Nitrogen Dioxide (NO ₂)	Attainment/Maintenance	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Lead	Attainment	Attainment

Source: California Air Resources Board 2015.

State

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for other pollutants recognized by the state. In general, the California standards are more health protective than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in compliance with these California standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. Table 3-2 details the current NAAQS and CAAQS, and Table 3-3 provides the Orange County portion of the Basin's attainment status with respect to NAAQS and CAAQS.

Local

The project lies within the Orange County portion of the Basin, which is under the jurisdiction of SCAQMD. SCAQMD has jurisdiction over an area of approximately 10,743 square miles, including all of Orange County; Los Angeles County, except for the Antelope Valley; the non-desert portion of western San Bernardino County; and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of the SCAQMD jurisdiction. Although air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources, control programs for area sources and indirect sources, an SCAQMD permitting system designed to allow no net increase in emissions from any new or modified (i.e., previously permitted) emission sources, and transportation control measures. The 2012 AQMP is the most recent. The Final 2012 AQMP was adopted by the SCAQMD Governing Board on December 7, 2012. Control measure IND-01 was approved for adoption and inclusion in the Final 2012 AQMP at the February 1, 2013, Governing Board meeting. The California Air Resources Board (ARB) approved the 2012 AQMP on January 25, 2013, and the AQMP has been submitted to the U.S. Environmental Protection Agency (EPA) as a revision to the California SIP (SCAQMD 2012). The 2012 AQMP addresses CAA requirements, including a 24-hour PM_{2.5} plan, additional 8-hour ozone measures

with a vehicle-miles-traveled offset demonstration, and a 1-hour ozone attainment demonstration with vehicle-miles-traveled offset demonstration.

SCAQMD published the *CEQA Air Quality Handbook* in November 1993¹ to help local governments analyze and mitigate project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses as part of CEQA documents prepared within SCAQMD's jurisdiction. SCAQMD has published two additional guidance documents—*Localized Significance Threshold Methodology for CEQA Evaluations* (SCAQMD 2008a) and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* (2006)—that provide guidance for evaluating localized effects from mass emissions during construction. Both were used in the preparation of this analysis.

Through the attainment planning process, SCAQMD develops rules and regulations to regulate sources of air pollution in the Basin (SCAQMD 2011a). Several of these rules may apply to construction or operation of the project. For example, SCAQMD Rule 403 requires implementing the best available fugitive dust control measures during active operations capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads.

Methodology

Appendix G, Section III, of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make determinations regarding air quality impacts.

Criteria Pollutants

Given SCAQMD's regulatory role in the Basin, the significance thresholds and analysis methodologies outlined in its *CEQA Air Quality Handbook*, *Localized Significance Threshold Methodology for CEQA Evaluations*, and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* guidance documents were used in evaluating both short-term construction emissions and long-term operational emissions from the proposed project. Specifically, the SCAQMD construction and operational mass emissions thresholds identified in Table 3-4 were used for the assessment of criteria pollutants. Note that localized significance thresholds (LSTs) are based on the size or total area of the emissions source, the ambient air quality in each SRA where the emission source is located, and the distance to the sensitive receptor. The LSTs used here are based on the project area potentially disturbed on any given day (5 acres), the project location (SRA 20), and the distance to the nearest sensitive receptor (25 meters).

¹ Section updates provided on the SCAQMD website.

Table 3-4. SCAQMD Significance Thresholds (pounds per day)

Pollutant	Regional Emissions Thresholds		Localized Emissions Thresholds ^a	
	Construction	Operation	Construction	Operation
Nitrogen Oxides (NO _x)	100	55	197	197
Volatile Organic Compounds (VOC)	75	55	N/A	N/A
Suspended Particulate Matter (PM ₁₀)	150	150	14	4
Fine Particulate Matter (PM _{2.5})	55	55	9	2
Sulfur Oxides (SO _x)	150	150	N/A	N/A
Carbon Monoxide (CO)	550	550	1,711	1,711
Lead (Pb) ^b	3	3	N/A	N/A

Source: SCAQMD 2008a, 2011b.

^a Localized thresholds derived from SCAQMD's most recent LST tables are based on the project location (SRA 20, Central Orange County Coastal), the project area disturbed in any given day (5 acre), and the distance to the nearest sensitive receptor (25 meters). SCAQMD has not developed LSTs for VOC, SO_x, or lead emissions.

^b The proposed project would result in no lead emissions sources during the construction or operations period. As such, lead emissions are not evaluated herein.

Methods

This assessment evaluates criteria pollutants (regional and local), local intersection CO concentrations, TAC pollutant emissions, and odiferous compounds.

To assess criteria pollutant emissions, the California Emissions Estimate Model (CalEEMod (version 2013.2.2)) is used to quantify regional and local emissions during project construction and operations. Emissions are compared to applicable SCAQMD significance thresholds to determine significance.

The Caltrans CO Protocol screening criteria is used to select intersections capable of generating adverse CO concentrations as a result of project-related traffic volumes. Intersections that fail the SCAQMD screening criteria are modeled using CALINE4 and EMFAC 2014 emissions factors to ascertain worst-case local CO concentrations. Modeled CO concentrations are then compared to the CAAQS for CO (1-hour and 8-hour standards) to determine significance.

Local DPM emissions during construction (the primary project-related TAC pollutant) are modeled using the SCREEN3 model to estimate the worst-case potential DPM concentration. Cancer and non-cancer risks are then calculated using the California Office of Environmental Health's Hazard Assessment guidelines, and compared to SCAQMD significance criteria.

The potential for odor impacts are evaluated qualitatively, taking into account odiferous emissions sources and sensitive receptor locations.

Impact Analysis

Would the project:

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

Less-than-Significant Impact. SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Basin is in nonattainment. SCAQMD's most recent plan to achieve

air quality standards is the 2012 AQMP, adopted by the SCAQMD Governing Board on December 7, 2012. The 2012 AQMP outlines comprehensive control strategies to meet PM_{2.5}, O₃, and lead standards, and maintain CO, NO₂, and PM₁₀ standards. These strategies are based, in part, on regional population, housing, and employment projections prepared by the region's cities and counties and incorporated by the Southern California Association of Governments (SCAG). As such, projects that propose development that is consistent with the growth anticipated in the relevant land use plans that were used in the formulation of the AQMP are therefore considered to be consistent with the AQMP. The governing land use document relevant to the project area is the LNGP. Therefore, projects that propose development consistent with the growth anticipated in the current LNGP (and that implement all applicable AQMP control measures) are considered consistent with the AQMP.

Because the proposed project would increase development density beyond the current allowable limit, an evaluation of project-related growth in relation to city-wide growth projections is warranted. The proposed project would increase the site's allowable development density from 35 dwelling units to 71 dwelling units (see Section X, *Land Use*). Given the City's population/housing ratio of 2.61 persons per unit, the resulting population increase would be approximately 185 persons. Based on California Department of Finance population estimates, the City's 2015 population was 64,836.

The City's 2020 population projection of 65,700 in the currently adopted SCAG 2012 Regional Transportation Plan (RTP) is being increased to 67,493 for the SCAG 2016 RTP. As such, the City's population is anticipated to increase by 2,657 persons between the years 2015 and 2020. The 185-person population increase projected to occur as a result of the proposed project would account for a small portion of the City's population growth included in the updated RTP. In addition, the project would comply with all applicable SCAQMD Rules, as discussed below in III.b through III.e. As a result, the project would be consistent with the AQMP, and this impact would be less than significant.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less-than-Significant Impact. The proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Project-related air emissions are calculated and evaluated for both construction and operational phases, which are described separately below.

Construction

Regional construction-period criteria pollutant emissions were quantified using the CalEEMod land use emissions estimation model. Modeling output sheets that detail construction scheduling, equipment, and earthwork assumptions are provided in Appendix A. Criteria pollutants would be generated by the exhaust emissions of heavy-duty construction equipment used during the multiple phases of the proposed project's construction and from the crushing equipment. Non-exhaust emissions would be generated by earthwork and demolition activities, including crushing of on-site materials, which would result in fugitive dust emissions, and painting/coatings operations, which would release reactive organic compound (ROC) emissions during off-gassing. Regional construction-period emissions are shown in Table 3-5.

Table 3-5. Regional Criteria Pollutant Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (pounds per day)					
	ROC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Demolition, Crushing, and Site Preparation	7	70	54	<1	27	16
Grading, Cut/Fill Activities	7	75	50	<1	10	7
Building Construction	4	29	21	<1	2	2
Architectural Coating	50	2	2	<1	<1	<1
Paving	2	20	16	<1	1	1
Phase Overlap Totals	56	51	39	<1	3	3
Peak Daily Emissions	56	75	50	<1	27	16
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod modeling output provided in Appendix A.

Note: "Phase Overlap Totals" assume concurrent periods of building construction, architectural coating, and paving activity.

CO = carbon monoxide

ROC = reactive organic compounds

NO_x = nitrogen oxides

SCAQMD = South Coast Air Quality Management District

PM_{2.5} = particulate matter less than 2.5 microns in size

SO_x = sulfur oxides

PM₁₀ = particulate matter less than 10 microns in size

With respect to construction phasing, site preparation, including demolition and crushing of existing on-site materials, would occur first. The crushed materials would be stockpiled on site. Following demolition and crushing, the project site would be graded and certain subsurface infrastructure, such as storm drains, subdrains, and dewatering wells, would be installed concurrently. Following grading, activities associated with building construction, architectural coatings, and paving phases would have periods of activity overlap. Emissions from each phase (or phases, in the case of building construction, architectural coating, and paving) were assessed against the SCAQMD thresholds.

As shown in Table 3-5, daily emissions associated with construction would not exceed SCAQMD regional thresholds. Regional construction emissions would not contribute substantially to or worsen an existing air quality violation, because SCAQMD significance thresholds would not be exceeded.

Operation

Operation of the proposed project would generate criteria pollutant emissions through the addition of area and mobile sources over existing conditions. Area sources would include landscaping equipment exhaust, combustion of natural gas for space and water heating in residences, and off-gassing from architectural coatings and consumer products. Mobile source emissions would be generated by vehicle trips, particularly by residents. Emissions generated by the proposed project are presented in Table 3-6. As shown therein, proposed project emissions would not exceed SCAQMD regional emissions thresholds.

Table 3-6. Proposed Project Criteria Pollutant Operational Emissions

Source	Pollutant Emissions (pounds per day)					
	ROC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Proposed New Residences						
Area Sources	3	<1	6	<1	<1	<1
Energy Sources	<1	1	<1	<1	<1	<1
Mobile Sources	2	5	24	<1	5	1
Total Project Emissions	5	6	30	<1	5	2
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod modeling output provided in Appendix A.

CO = carbon monoxide

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROC = reactive organic compounds

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

Emissions associated with construction of the proposed project and the total operational period of the proposed project would not violate any air quality standards or worsen an existing violation. Therefore, this impact would be less than significant.

- c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?**

Less-than-Significant Impact. The Basin, the geographic region where the proposed project is located, is currently in nonattainment for O₃ and PM_{2.5} under the NAAQS as well as for O₃, PM₁₀, and PM_{2.5} under the CAAQS. This is the result of past and present projects and will be further impeded by reasonably foreseeable future projects. SCAQMD has developed thresholds to ensure attainment of the NAAQS and CAAQS; therefore, exceedance of SCAQMD regional threshold levels is considered a significant cumulative impact and adverse cumulative consequence. As discussed above in III.b, criteria pollutant emissions would not exceed any pollutants' regional threshold during construction and operation of the proposed project. Therefore, because the proposed project would not exceed the thresholds for a nonattainment pollutant (in this case, ozone precursors [ROC and NO_x], PM₁₀, and PM_{2.5}), the proposed project would not result in a net increase in pollutants (including ozone precursors) that would be cumulatively considerable. This impact would be less than significant.

- d. Expose sensitive receptors to substantial pollutant concentrations?**

Less-than-Significant Impact with Mitigation. The proposed project would contribute to localized air pollutant emissions during construction (short term) and project operations (long term). SCAQMD has developed a set of localized mass emissions rate look-up tables that can be used to evaluate localized impacts that may result from construction- and operations-period emissions. According to SCAQMD, only those emissions that occur on site are to be considered in the LST analysis.

The closest residential uses to the project site are immediately north and west of the project site. The appropriate LST value of 25 meters was chosen based on this distance, the project size, and the project's vicinity using the SCAQMD's LST guidance document, which lists thresholds for a number of SRAs. The project is located in SRA Number 20, Central Orange County Coastal, with the project size assumed to be 5 acres, which is the largest possible project area in the guidance document.

Construction

Project construction would emit localized pollutants through the on-site use of heavy-duty construction equipment as well as fugitive dust from demolition and crushing of existing materials and from ground-disturbing activities on site. These localized emissions could expose nearby sensitive receptors to substantial pollutant concentrations.

Consistent with SCAQMD LST guidelines, emissions related to haul truck and employee commuting activity during construction are not considered in the evaluation of localized impacts. As shown in Table 3-7, maximum daily on-site emissions for PM₁₀ and PM_{2.5} during construction would exceed the appropriate LSTs for the project area. As such, **Mitigation Measure MM AQ-1** is prescribed.

MM AQ-1: All off-road construction equipment shall meet EPA Tier-4 emissions standards.

Also shown in Table 3-7, **Mitigation Measure MM AQ-1** would reduce on-site PM₁₀ and PM_{2.5} emissions during construction to a level that is less than significant. As such, project construction with mitigation would not create substantial pollutant concentrations with respect to LSTs.

Table 3-7. Estimate of Localized Construction Emissions (pounds per day)

Emissions Sources	NO _x	CO	PM ₁₀	PM _{2.5}
On-site Emissions – No Mitigation	75	53	27	16
On-site Emissions – With Mitigation	51	38	10	6
Localized Significance Thresholds	197	1,711	14	9
Threshold Exceeded?	No	No	No	No

Source: CalEEMod modeling output provided in Appendix A.

SRA: Number 20, Central Orange County Coastal, 5-acre LSTs, 25-meter distance for sensitive receptors

CO = carbon monoxide

PM_{2.5} = particulate matter less than 2.5 microns in size

LST = localized significance threshold

PM₁₀ = particulate matter less than 10 microns in size

NO_x = nitrogen oxides

SRA = Source Receptor Area

Operation

SCAQMD's LST methodology was developed to aid in operational analysis of land use development projects. It directs analyses to focus on emissions from stationary sources (e.g., natural gas furnaces, architectural coatings) operating on site. The LST methodology and lookup tables are not designed to evaluate localized impacts from mobile sources traveling over roadways, such as residents' vehicle trips. Therefore, only on-site emissions are included in the LST analysis. For this analysis, it was assumed that 5% of project-related new mobile sources would occur on site, as the modeling software used to quantify emissions does not distinguish between on-site and off-site emissions. The 5% assumption likely represents a very conservative scenario, as on-site trips are expected to be minimal. As shown in Table 3-8, localized operational emissions would not exceed the appropriate

LSTs for the project area. Therefore, project operations would not create substantial pollutant concentrations with respect to LSTs.

Table 3-8. Estimate of Localized Operational Emissions (pounds per day)

Emissions Sources	NO_x	CO	PM₁₀	PM_{2.5}
On-site Emissions	<1	7	<1	<1
Localized Significance Thresholds	197	1,711	4	2
Threshold Exceeded?	No	No	No	No

Source: CalEEMod modeling output provided in Appendix A.

SRA: Number 20, Central Orange County Coastal, 5-acre LSTs, 25-meter distance for sensitive receptors, on-site traffic 5% of total.

CO = carbon monoxide

PM_{2.5} = particulate matter less than 2.5 microns in size

LST = localized significance threshold

PM₁₀ = particulate matter less than 10 microns in size

NO_x = nitrogen oxides

SRA = Source Receptor Area

Toxic Air Contaminants

SCAQMD recommends that a health risk assessment be conducted for projects with substantial emissions of TACs such as diesel particulate emissions (e.g., truck stops and warehouse distribution facilities), certain industrial projects with acute and/or chronically hazardous TAC pollutants, or, as in the case of the proposed project, projects that require an intense level of construction activity close to sensitive receptor locations. Given that there are residential uses immediately north and west of the proposed project site, a health risk assessment was prepared for the proposed project's construction-period DPM emissions.

The cancer and non-cancer risks for the proposed project were quantified using the EPA-approved SCREEN3 screening model. Detailed DPM emissions calculations, risk calculations, and SCREEN3 modeling outputs are provided in Appendix A. As shown in Table 3-9, the increase in cancer risk at nearby residential uses is estimated to be 9.2 in one million, as a result of project construction DPM emissions. This risk level would not exceed the SCAQMD threshold of 10 in one million.

The non-cancer hazard index resulting from project-related DPM emissions during construction was determined to be 0.002, as shown in Table 3-9. This hazard index is below the SCAQMD threshold of 1.0.

Consequently, because the resulting cancer risk and hazard index values would not exceed SCAQMD thresholds, the project would not expose sensitive receptors to substantial amounts of acute and/or chronically hazardous TAC pollutants. Impacts related to potential project-generated exposure to TACs on surrounding land uses would be less than significant.

Table 3-9. Health Risks for Proposed Project Residents

	Maximum Cancer Risk	Maximum Non-Cancer Risk (Hazard Index)
SCAQMD Threshold	10 in 1 million	1.0
Residential Use	9.2 in 1 million	0.002
Threshold Exceeded?	No	No

Source: CalEEMod and AERSCREEN modeling outputs and risk calculations provided in Appendix A.

CO Hot Spots

With respect to CO hot spots, vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. Project traffic volumes were screened for potential to generate CO hotspots using the methodology detailed in the Caltrans CO Protocol. This process involves (1) comparing the worst-case project traffic intersection (i.e., worst level of service and worst delay) of I-5 southbound ramps/Avery Parkway to the SCAQMD 2003 AQMP attainment demonstration intersections, and (2) comparing the project CO background concentration to that used in the 2003 attainment demonstration.

The comparison of attainment demonstration and worst-case project intersection per lane traffic volumes are provided in Table 3-10. With respect to CO background concentration, an 8-hour CO background concentration of 7.8 parts per million (ppm) (year 2005) was used for the 2003 AQMP attainment demonstration, compared to the most recent project vicinity 8-hour background concentration of 0.79 ppm (2012).

Table 3-10. Peak-Hour Approach Lane Volumes Used in the 2003 AQMP Attainment Demonstration Compared to Worst-case Project Intersection

Attainment Demonstration Intersection Locations	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)
Wilshire & Veteran (4 lanes all directions)	1,238/517	458/829	180/350	140/233
Sunset & Highland (3 lanes all directions)	472/588	447/513	768/611	517/746
La Cienega & Century (4 lanes all directions)	635/561	473/682	346/507	205/419
Long Beach & Imperial (3 lanes all directions)	406/673	587/467	160/315	252/383
Worst-case Project Intersection (2 lanes east/west directions, 3 lanes southbound)	333/353	343/505	548/470	--/--

Source: SCAQMD 2003; Appendix J.

Given that the proposed project's worst-case per lane traffic volumes at the I-15 southbound ramps/Avery Park Parkway intersection are consistent with AQMP attainment demonstration per lane traffic volumes and, more importantly, the precipitous decline in the project vicinity CO background concentration when compared to the attainment demonstration CO background concentration, there would be no potential for project traffic volumes to result in creation of any CO hot spot. This impact would be less than significant.

e. Create objectionable odors affecting a substantial number of people?

Less-than-Significant Impact. Construction of the project would require heavy-duty equipment in the project area during the construction period, which can generate odors through equipment exhaust. Construction exhaust odors would be temporary and rather localized. The predominant wind pattern is from the west/southwest. Therefore, the majority of construction exhaust odors would likely blow toward the Mercedes Benz dealership and the freeways. Some residences may experience an increase in odor, but this would be a temporary condition.

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The proposed project does not include any uses identified by SCAQMD as being associated with odors and, therefore, long-term operational activity associated with the project would not produce objectionable odors.

This impact would be less than significant. No mitigation is required.

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

The analysis contained in this section is based on the results of a literature review and field survey conducted by ICF International (ICF) on July 28, 2015 and a Jurisdictional Delineation conducted by VCS Environmental on October 1, 2015. Additional details of these assessments are provided below and in Appendix B.

Environmental Setting

The proposed project site consists of streets and cul-de-sacs adjoined by undeveloped, previously graded terraced slopes. The existing streets are paved and lined with concrete curbs and gutters. Traditional residential street lights are present along the street edges. Graded undeveloped flat terraces ascend from east to west. The majority of the site (areas not associated with the existing

streets) consists of a mix of bare ground and nonnative herbaceous (ruderal) vegetation associated with disturbed conditions.

The lands immediately adjacent to the north consist of mostly single-family residences. Down-slope and east of the site, a narrow strip of land composed of a mix of ornamental landscaping and ruderal vegetation separates the site from a Mercedes-Benz dealership. Lands immediately adjacent to the south are undeveloped open space consisting of a mix of coastal sage scrub and ruderal vegetation. The campus of Saddleback Church of Laguna Niguel is located to the southeast (approximately 250 feet). The lands immediately adjacent to the west consist of a steep ascending slope supporting mostly ruderal vegetation. Extensive residential development is located farther west (approximately 350 feet).

According to the U.S. Department of Agriculture's Natural Resources Conservation Service soil survey, the soil associations on the site include Alo Clay, 9–15% slopes; Alo Clay, 15–30% slopes; Alo Clay, 30–50% slopes; and Sorrento Clay Loam, 2–9% slopes (Figure 3-3).

Habitat/Land Cover

The majority of the vegetation supported on the site consists of ruderal vegetation. Several mature ornamental trees are scattered around the site. Native habitat is limited to a couple of small, isolated patches of coastal sage scrub near the perimeter of the site. In addition, a wetted area within a lined basin associated with a constructed groundwater dewatering system supports a small monotypic patch of vegetation, at one of the lowest-lying locations on the eastern side of the site. Figure 3-4 shows the existing vegetation that covers the site. Based on the County of Orange Habitat Classification System (OCHCS) (Gray and Bramlet 1992), the Habitat/Land Cover classifications associated with the site are described as follows.

Ruderal (OCHCS 4.6): The majority of the site is classified as Ruderal. This category is dominated by brome grasses (i.e., *Bromus madritensis* and *B. diandrus*), but also includes moderate densities of nonnative herbaceous plants such as black mustard (*Brassica nigra*), slender wild oat (*Avena barbata*), and tocalote (*Centaurea melitensis*). Approximately 16.64 acres of ruderal vegetation occur on the site.

Developed (OCHCS 15.4): This category describes the developed portion of the site in the form of paved streets and cul-de-sacs. Due to the lack of regular maintenance associated with the site, vegetation has infiltrated cracks and eroded pavement. Vegetation associated with this development is a mix of ruderal species including castor bean (*Ricinus communis*), fennel (*Foeniculum vulgare*), Russian thistle (*Salsola tragus*), black mustard, and tree tobacco (*Nicotiana glauca*). Approximately 2.28 acres of developed areas occur on the site.

The developed portion of the site also includes a subsurface dewatering investigation area, approximately 0.01 acre in size, which was used to determine the geologic benefit of long-term dewatering. Three hydraugers were drilled horizontally into the slope. PVC pipes, with valves, connect the hydraugers to a plastic-lined pool, which then sheet flows off site. At the time of investigation, a small monotypic patch of narrow-leaved cattail (*Typha angustifolia*) had established in the pool; however, all water to the pool has been subsequently shut off and no natural water source exists.

Parks and Ornamental Plantings (OCHCS 15.5): This category describes areas dominated by nonnative ornamental trees and/or shrubs. The ornamental trees found on the site include Mexican



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Figure 3-3
Soils
SunPointe Residential Project





Figure 3-4
Vegetation
SunPointe Residential Project

fan palms (*Washingtonia robusta*), pepper trees (*Schinus molle*), and Aleppo pines (*Pinus halepensis*). Approximately 0.07 acre of parks and ornamental plantings occur on the site.

Coastal Sage Scrub (OCHCS 2.3.1): This category describes fragmented and isolated patches of coastal sage scrub supported on the site. The patches of coastal sage scrub are located along the perimeter of the site, with the largest patch (approximately 0.22 acre) located along the eastern boundary of the site. Species associated with this category are dominated on site by California buckwheat (*Eriogonum fasciculatum*) and California sagebrush (*Artemisia californica*). Other native shrubs include purple sage (*Salvia leucophylla*) and California brittlebush (*Encelia californica*). Approximately 0.50 acre of coastal sage scrub occurs on the site.

Regulatory Setting

Federal Endangered Species Act of 1973 (USC, Title 16, Sections 1531 through 1543)

The Federal Endangered Species Act (FESA) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. In addition, the FESA defines species as threatened or endangered and provides regulatory protection for listed species. The FESA also provides a program for the conservation and recovery of threatened and endangered species, as well as the conservation of designated critical habitat that the U.S. Fish and Wildlife Service (USFWS) determines is required for the survival and recovery of these listed species.

Section 7 of the FESA requires federal agencies, in consultation with and with assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. USFWS and the National Marine Fisheries Service share responsibilities for administering the FESA. Regulations governing interagency cooperation under Section 7 are found in CCR Title 50, Part 402. The opinion issued at the conclusion of consultation will include a statement that authorizes the take that may occur incidental to an otherwise legal activity.

Section 9 lists those actions that are prohibited under the FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without special exemption. The definition of “harm” includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. “Harass” is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at 50 Code of Federal Regulations (CFR) 13 and 17 for species under the jurisdiction of USFWS and 50 CFR 217, 220, and 222 for species under the jurisdiction of the National Marine Fisheries Service.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies.

The U.S. Army Corps of Engineers (USACE) exerts jurisdiction over waters of the United States (WoUS), including all waters that are subject to the ebb and flow of tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. The extent of WoUS is generally defined as that portion that falls within the limits of the ordinary high water mark. Typically, the ordinary high water mark corresponds to the 2-year flood event.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by USACE as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3(b); 40 CFR 230.3(t)). Indicators of three wetland parameters (hydric soils, hydrophytic vegetation, and wetlands hydrology) as determined by field investigation must be present for a site to be classified as a wetland by USACE.

Federal Clean Water Act (33 USC 1251 through 1376)

The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters.

Section 401 requires that a project proponent for a federal license or permit that allows activities resulting in a discharge to WoUS must obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Control Board administers the certification program in California.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredge or fill material) into WoUS.

Section 404 establishes a permit program administered by USACE to regulate the discharge of dredged or fill material into WoUS, including wetlands. Implementing regulations by USACE are found at 33 CFR Parts 320–330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines and were developed by EPA in conjunction with USACE (40 CFR Part 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

California Endangered Species Act (California Fish and Game Code 2050 et seq.)

The California Endangered Species Act (CESA) establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no State agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is “consistent” with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project proponent would have to apply for a take permit under Fish and Game Code Section 2081(b).

Section 2080 of the California Fish and Game Code states that “No person shall import into this State [California], export out of this State, or take, possess, purchase, or sell within this State, any species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act.” Pursuant to Section 2081 of the code, CDFW may authorize individuals or public agencies to import, export, take, or possess State-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or Memoranda of Understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project proponent ensures adequate funding to implement the measures required by CDFW, which makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful to take (e.g., kill, harm, harass) any migratory bird listed in 50 CFR 10, including their nests, eggs, or products. The MBTA provides protection to more than 800 species of birds, including common species such as the American robin (*Turdus migratorius*), house finch (*Carpodacus mexicanus*), Anna’s hummingbird (*Calypte anna*), red-tailed hawk (*Buteo jamaicensis*), American crow (*Corvus brachyrhynchos*), and western meadowlark (*Sturnella neglecta*).

Orange County Natural Community Conservation Plan, Central and Coastal Subregion

The Natural Community Conservation Act, codified at California Fish and Game Code (FGC) Sections 2800–2840, authorizes the preparation of Natural Community Conservation Plans (NCCPs) to protect natural communities and species while allowing a reasonable amount of economic development. The NCCP/Habitat Conservation Plan (HCP), which was reviewed and approved by CDFW (at that time, California Department of Fish and Game) and USFWS in 1996, addresses the protection and management of coastal sage scrub habitat and coastal sage scrub-obligate species, as well as other covered habitats and species, and mitigates anticipated impacts on those habitats and species on a programmatic, subregional level rather than on a project-by-project, single-species basis. A habitat reserve in excess of 37,000 acres was established for the protection of coastal sage scrub, other upland habitats, and primarily coastal sage scrub-dependent species identified in the NCCP/HCP. Specifically, through take authorization granted with the adoption of the NCCP/HCP, USFWS and CDFW authorized take of 39 identified species of plants and wildlife (including covered and conditionally covered species, i.e., coastal California gnatcatcher [*Polioptila californica californica*]). Furthermore, the NCCP/HCP contains requirements for adaptive management, interim management, and funding management for the reserve as well as procedures and minimization measures related to the take of identified species and habitat. Thus, the NCCP/HCP provides for the protection and management of a broad range of plant and wildlife populations while providing certainty to the public and affected landowners regarding the location of future development and open space in the subregion.

The site is within the NCCP/HCP, County of Orange Central and Coastal Subregion. However, the site is not within lands designated as “reserve” within the NCCP/HCP. The nearest designated

NCCP/HCP reserve lands are approximately one quarter mile south of the site. The site is mapped as grassland within the NCCP/HCP.

Methodology

Potential biological resource concerns within the area of the site were identified through a review of existing information, including a search of the California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) Online Inventory. A query of the CNDDDB and CNPS database included the U.S. Geological Survey 7.5-minute California quadrangle, San Juan Capistrano, where the site is located, and the seven adjacent quadrangles: Laguna Beach, Tustin, El Toro, Santiago Peak, Canada Gobernadora, San Clemente, and Dana Point. Google Earth aerial imagery, dated March 24, 2015 (Google, Inc. 2015), for the site and surrounding lands were reviewed prior to conducting field investigations. Additional information reviewed included USFWS-designated Critical Habitat mapping and species list (USFWS 2015), NCCP/HCP reserve mapping, and Natural Resources Conservation Service Web Soil Survey mapping. The literature review results are included in Appendix B.

ICF biologist Kolby Olson conducted a habitat-based reconnaissance-level survey of the site on July 28, 2015. During the visit, the site was assessed for the presence or absence of habitat suitable to support special-status plant and wildlife species. The visit included walking meandering transects throughout all portions of the site and allowed for inspection of adjacent lands. The habitat types and land uses on and adjacent to the site were delineated on aerial imagery in the field. All observed or detected plant and wildlife species were noted.

ICF biologist Phillip Richards (TE-095896) conducted a survey for California gnatcatcher following USFWS presence/absence survey protocol for non-NCCP areas during the non-breeding season. The survey effort included nine visits at least 2 weeks apart between September 21, 2015 and January 25, 2016. Each visit covered all potentially suitable habitat on and immediately adjacent to the site.

On October 1, 2015, VCS Environmental conducted a jurisdictional delineation of the project site. The delineation consisted of a field inspection in accordance with the *United States Army Corps of Engineers 1987 Wetland Delineation Manual* and the *Arid West Supplement*, as well as CDFW protocol for determining WoUS and waters of the State (Appendix B).

Impact Analysis

Would the project:

- a. ***Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?***

Less-than-Significant Impact. The CNDDDB and CNPS literature review conducted for the site and surrounding quadrangles resulted in 69 special-status plant species and 59 special-status wildlife species reported as occurring in the vicinity of the site (Appendix B).

Of the 69 special-status plant species, all are deemed as having a less than reasonable potential of occurrence on the site. This conclusion is based on these species' requirements for some combination of soils, hydrology, habitats, elevation range, and/or disturbance tolerance, along with consideration of the site conditions and observed resources.

Of the 59 special-status wildlife species, 56 are deemed as having a less than reasonable potential of occurrence. This conclusion is based on these species' requirements for some combination of hydrology, habitat and vegetation associations, elevation range, and/or disturbance tolerance, along with consideration of the site conditions and observed resources. Three wildlife species are deemed to have a low potential to occur on or adjacent to the site: orange-throated whiptail (*Aspidoscelis tigris stejnegeri*, CDFW Species of Special Concern [SSC]), coast-horned lizard (*Phrynosoma blainvillii*, CDFW SSC), and coastal California gnatcatcher, federally listed as threatened, CDFW SSC).

Special-status Reptiles: Potentially suitable habitat for coast-horned lizard and orange-throated whiptail is present on the site in association with coastal sage scrub; however, due to the site's small size, sparse cover, isolated location, and surrounding disturbed conditions, the potential for these species to occupy the site is extremely low.

Coastal California Gnatcatcher: The coastal sage scrub on, and adjacent to, the site is potentially suitable for supporting coastal California gnatcatcher. USFWS protocol surveys to determine presence or absence of coastal California gnatcatcher yielded no detections of the species on or adjacent to the site. Based on the negative survey results, no impacts would occur and no mitigation is required.

Based on the above-mentioned detailed habitat assessment and protocol surveys for the coastal California gnatcatcher, no special-status plant or animal species were observed on the project site or have the potential to occur on the project site. A complete list of all plant and wildlife species observed during the field survey is included in Appendix B. Therefore, potential impacts are less than significant.

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

Less-than-Significant Impact. Approximately 0.50 acre of coastal sage scrub is supported on the site. In general, this habitat type provides habitat for listed and non-listed special-status species, most notably the coastal California gnatcatcher. In addition, this habitat type can be considered by CDFW as a special-status community. Direct impacts on this habitat type can require compensatory mitigation if the habitat provides valuable biological function and/or supports special-status species, with mitigation ratios largely dependent upon quality and perceived functions and values. The coastal sage scrub supported on the site is isolated and fragmented along the perimeter of the site. Given the small size, isolated location, and marginal quality, the coastal sage scrub habitat on site is not considered to provide a valuable biological function and, therefore, no compensatory mitigation is required.

Within the lower (northeastern) portion of the site, a small (0.01 acre) monotypic patch of narrow-leaved cattail (*Typha angustifolia*) had established in a plastic-lined plunge pool. In general, a patch of narrow-leaved cattail could also be considered a sensitive natural community. However, on the project site the narrow-leaved cattail established within a plastic-lined plunge pool used as the outlet from a subsurface dewatering investigation. Three hydraugers were drilled horizontally into the slope. PVC pipes, with valves, connect the hydraugers to a plastic-lined pool, which then sheet flows off site. All three water sources to the pool have been subsequently shut off and no natural water source exists. Without a natural water source and no evidence of narrow-leaved cattail naturally occurring on the project site through the review of historic aerials, this patch of narrow-leaved cattail is not considered a sensitive natural plant community. Furthermore, with the removal

of the temporary constructed water source, this community will quickly revert to uplands. Therefore, impacts would be less than significant and no mitigation is required.

- 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?***

Less-than-Significant Impact. On October 15, 2015 a jurisdictional delineation was performed across the project site (see Appendix B). The delineation included a review of historic aerial photographs and a field survey. No jurisdictional wetland or non-wetland features were observed within the property. The project site has undergone geotechnical exploration, which included the installation of four hydraugers, which are horizontally drilled dewatering wells. The first three wells were installed in May 2013 and the fourth well installed in November 2013. The hydraugers outlet into a small lined basin filled with gravel. The basin was constructed in January 2014. The basin is designed to collect and hold groundwater discharged from the hydraugers until the water evaporates. A lack of maintenance has resulted in the growth of a small patch of narrow-leaved cattail. However, this basin is non-jurisdictional for several reasons: (1) the basin is lined and a man-made feature that is isolated without having downstream connectivity to jurisdictional waters; (2) the water source has been turned off and, other than rainwater to collect in the lined pool, no water source exists; and (3) a review of historic aerials does not reveal any evidence of vegetation, or bed and bank, that would indicate the presence of jurisdictional waters on the project site. Therefore, no impacts on state or federally protected wetlands or waters would occur and the potential impacts are less than significant.

- d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

Less-than-Significant Impact with Mitigation Incorporated.

Nesting Birds: The MBTA prohibits take of nearly all native birds. Under the MBTA, “take” means to kill, directly harm, or destroy individuals, eggs, or nests or to otherwise cause failure of an ongoing nesting effort.

Similar provisions within the FGC protect all native birds of prey (FGC Section 3503.5) and all non-game birds, where not already listed as Fully Protected, that occur naturally in the state (FGC Section 3800).

The proposed project is expected to affect native birds, including nesting birds, through direct removal of habitat and potentially indirectly during construction and project implementation (e.g., vehicular traffic).

Because birds have the potential to nest in and around the study area, any impact on nesting birds could be significant under CEQA and a potential violation of the MBTA and FGC. Implementation of **Mitigation Measure MM BIO-1** would ensure compliance with the MBTA and FGC and thus reduce potential impacts to a less-than-significant level.

MM BIO-1. Ground disturbance or vegetation removal activities will be conducted outside of the nesting bird season (generally February 15 through August 31, but could begin earlier [December–January] if suitable nesting habitat for raptors is present around the project site). If ground disturbance or vegetation removal activities are necessary during the nesting bird

season, prior to grading activities, the project applicant will retain a qualified biologist to conduct a nesting bird survey(s) on and adjacent to (where legally accessible) the site or work area. Surveys will be conducted within 5 days of vegetation removal and/or ground disturbance activities. If nesting birds are found on or adjacent to the site or work area, then the biologist will provide and establish a suitable “no work” buffer around the nesting location in order to prevent nest failure or direct take of nesting birds. The sizes of these buffers will be determined at the discretion of the qualified biologist and will vary from 50 feet for non-special-status passerine species up to 300 feet for raptors. The nesting bird buffers will be maintained throughout the nesting period of the bird, as observed and documented by the qualified biologist. No construction or other activities will be allowed to occur within the buffer until the young have fledged or the nest becomes inactive, as directed by the project biologist. Once the nest is determined to be inactive by the qualified biologist, the “no work” buffers will be taken down and work will resume.

Raptor Foraging: Southern California holds a diversity of birds of prey (raptors), and many of these species are in decline. For most of the declining species, foraging requirements include extensive open, undisturbed or only lightly disturbed areas, especially grasslands. This type of habitat has declined severely in the region, affecting many species but especially raptors.

Raptor species observed in the study area included red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), Cooper’s hawk (*Accipiter cooperii*), and American kestrel (*Falco sparverius*). Although no raptor nests were observed, red-tailed hawk and American kestrel were regularly detected during visits to the study area. Because the study area provides relatively few resources for raptor nest sites, the site is not judged to provide “important” breeding potential for raptors in general. The more pertinent issue is whether the site has potential for providing valuable foraging habitat for raptors breeding locally and for raptors foraging during migration and/or overwintering in the area.

A majority of the site provides suitable foraging habitat for raptor species throughout the year. The proposed residential project is expected to directly affect most of this foraging habitat during construction; however, following construction approximately 50% of the site will remain open space. Furthermore, the site is contiguous to a vast amount of designated and conserved open space suitable for raptor foraging that extends to the south for several miles. Based on the extensive acreage of suitable raptor foraging habitat in the general area of the site and the designation of approximately half of the project site as open space, the loss of raptor foraging habitat in association with the proposed project is determined to be less than significant.

Wildlife Movement: The site is not within or adjacent to a wildlife movement corridor and does not support suitable vegetation and/or habitat that would provide quality wildlife movement opportunities. Therefore, the proposed project would not interfere with the movement of any wildlife species, and no impact would occur.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. There are no applicable local policies or ordinances protecting biological resources, such as tree preservation, for the project site. Thus, no impact would occur.

f. Conflict with the provisions of an adopted habitat conservation plan, natural conservation community plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The site is within the boundaries of the Central and Coastal Subregion of the NCCP/HCP; however, the site is not within or adjacent to lands designated as “reserve” within the NCCP/HCP. The nearest designated NCCP/HCP reserve lands are approximately 0.25 mile south of the site. Furthermore, the City is not a participating entity and is therefore not subject to the established policies of the NCCP/HCP and does not receive regulatory coverage under the NCCP/HCP. Therefore, the proposed project would not result in an adverse impact on the efficacy of the NCCP/HCP.

V. Cultural Resources	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Archaeological and Historical Resources

Archaeological investigations along coastal Southern California have produced a diverse range of human occupation, extending from approximately 10,000 years ago beginning with the early Holocene into the ethnohistoric and historic periods. The project site is 2.5 miles east of Aliso Creek, traditionally noted as an ethnographic transition zone between the Gabrielino and Juaneño Native American groups. Traditional definitions of Gabrielino territory include the watersheds of the San Gabriel, Santa Ana, and Los Angeles rivers; portions of the Santa Monica and the Santa Ana mountains; the Los Angeles Basin; the coast from Aliso Creek to Topanga Creek; and San Clemente, San Nicolas, and Santa Catalina islands.

Due to the absence of development within the project site during the historic period, there is no potential to encounter historic resources and little potential to encounter historic archaeological resources at the site. The project site was originally recorded as a residential tract in the 1960s and experienced mass grading to establish streets, utility infrastructure, and building pads for future homes. Further grading occurred in 1982 for additional lots. Following the installation of infrastructure, the proposed project site was determined to be unstable due to risk of landslide events, which precluded buildout of the site, and it has been inactive since. Therefore, there is low potential for the presence of prehistoric archaeological resources.

Paleontological Resources

The bedrock geologic unit mapped on the site is the late Miocene siltstone facies of the Capistrano Formation. The flat graded area has been partially developed with paved streets, curbs, gutters, homesite pads, sidewalks and gutters, street lights, and utility infrastructure. Vegetation primarily consists of nonnative grasses with some coastal sage scrub habitat and a few nonnative pepper trees.

The Oso Member of the Capistrano Formation is highly fossiliferous. Several localities have been documented from the Oso Member near the project site. These localities have produced an extensive

composite fossil fauna of predominantly marine vertebrates. Fossils found adjacent to and in the vicinity of the project area include sea lions (*Otariidae*), dugongid sea cows (*Dugongidae*), and horse fossils (*Pliohippus*). Additional species recorded include cartilaginous fish, such as sharks and rays; bony fish, such as salmon and sturgeon; leatherback turtles; crocodiles; diving birds; horses; rhinoceroses; camels; sea lions; and several types of whales, such as right, rorqual, and sperm whales.

According to Orange County paleontological sensitivity guidelines (Eisentraut and Cooper 2002), the Capistrano Formation has a very high sensitivity for paleontological resources, which means fossils are considered scientifically very significant and very important for research.

Methods

Records Search

In August 2015, a cultural resources record search was conducted by ICF archaeologists to identify any previously recorded cultural resources inside or within 0.5 mile of the proposed project area and to assess the potential for cultural resources within the proposed project area. Also included in the search were those cultural resources studies that have been conducted inside or within 0.5 mile of the proposed project area.

The review of this information showed no resources designated as local, state, or federal historic properties within the proposed project area. The records search identified 29 previous cultural resource investigations within an 0.5-mile radius of the project area. Of these studies, three included at least some portion of the proposed project area. The record search identified three archaeological resources within an 0.5-mile radius of the project area (one historic period resource and two prehistoric resources).

Contact with Interested Parties

A Sacred Lands File Search and list of local Native American contacts were requested from the Native American Heritage Commission (NAHC). The search was completed with negative results. The City has extended an invitation to local tribal representatives to consult on the CEQA review. As of publication of this Draft IS/MND, one response has been received from the Gabrieleño Band of Mission Indians.

Government Code Section 65352.3 (SB 18) Consultation

The City began the Government Code Section 65352.3 (commonly known as Senate Bill [SB] 18) Consultation process by contacting the NAHC and local tribal representatives. The City sent a letter to each of these tribes, inviting them to enter into consultation regarding the General Plan Amendment. As of publication of this Draft IS/MND, no responses have been received.

Assembly Bill 52 Consultation

Assembly Bill (AB) 52 requires lead agencies to consult with California Native American tribes that request such consultation in writing prior to the agency's release of a notice of an MND or a Negative Declaration. Pursuant to the provisions of AB 52, the City extended an invitation to consult on the CEQA review of this proposed project in order to assist with identifying, preserving, and mitigating

project impacts on Native American cultural places. As of publication of this Draft IS/MND, one response has been received from the Gabrieleño Band of Mission Indians.

Appendix C includes all correspondence to the NAHC and letters sent to tribal representatives pursuant to SB 18 and AB 52.

Regulatory Setting

Federal

No federal regulations apply to the proposed project.

State

California Environmental Quality Act

CEQA requires the assessment of a proposed project's effects on cultural resources. Pursuant to CEQA, a historical resource is a resource listed or eligible for listing in the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historical resources under CEQA unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed or determined eligible for listing in the CRHR, or is not included in a local register or survey, shall not preclude a lead agency, as defined by CEQA, from determining that the resource may be a historic resource, as defined in California PRC Section 5024.1. CEQA applies to archaeological resources when (1) the archaeological resource satisfies the definition of a historic resource, or (2) the archaeological resource satisfies the definition of a unique archaeological resource. A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria.

- The archaeological resource contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information.
- The archaeological resource has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed or formally determined eligible for listing in the National Register of Historic Places (NRHP) or designated as a California Historical Landmark (#770 and higher) are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmark program may be nominated for inclusion in the CRHR. A resource, either individually or as a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria.

- Criterion 1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Criterion 2. It is associated with the lives of persons important in our past.
- Criterion 3. It embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual or possesses high artistic values.
- Criterion 4. It has yielded, or may be likely to yield, information important in history or prehistory.

Furthermore, under California PRC Section 4852(c), a cultural resource must retain integrity to be considered eligible for listing in the CRHR. Specifically, it must retain sufficient character to be recognizable as a historical resource and convey reasons for a determination of significance. Integrity is evaluated with regard to the retention of factors such as location, design, setting, materials, workmanship, feeling, and association. Cultural sites that have been affected by ground-disturbing activities, such as grazing and off-road vehicle use (both of which occur within the project site), often lack integrity because they have been directly damaged or removed from their original location, among other changes.

Typically, a prehistoric archaeological site in California is recommended eligible for listing in the CRHR based on its potential to yield information important in prehistory or history (Criterion 4). Important information includes chronological markers such as projectile point styles or obsidian artifacts that can be subjected to dating methods, or undisturbed deposits that retain their stratigraphic integrity. Sites such as these have the ability to address research questions.

Native American Heritage Commission

California PRC Section 5097.91 established the NAHC, the duties of which include inventorying places of religious or social significance to Native Americans and identifying known graves and cemeteries of Native Americans on private lands. California PRC Section 5097.98 specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

California Public Records Act

Sections 6254(r) and 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public related to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports maintained by, or in the possession of, the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

California Health and Safety Code Sections 7050.5 and 7052

California Health and Safety Code Section 7050.5 declares that in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbance must cease and the county

coroner must be notified. California Health and Safety Code Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code Section 622.5

California Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

California Public Resources Code Section 5097.5

California PRC Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

Government Code Section 65352.3 Consultation

Senate Bill 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to approvals and amendments of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Prior to the approval or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the NAHC) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts on, cultural places on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).

Local

The LNGP contains goals, policies, and plans that are intended to guide land use and development decisions. The Open Space, Parks and Recreation Element was designed to ensure the conservation of important historical, archaeological, and paleontological resources. Relevant policies are listed below.

- **Goal 7.0:** Recognize significant cultural sites or features within the community.
 - **Policy 7.1:** Review the technical data on sensitive cultural resources for all new development proposals.
 - **Policy 7.2:** Require mitigation of impacts to significant areas of archaeological and paleontological resources.
 - **Policy 7.3:** Preserve uncovered resources in their natural state, as much as feasible to assure their preservation and availability for later study. Require that uncovered resources are documented and retained in an appropriate museum or institution.
 - **Action 7.3.1:** Require effective mitigation measures where development may affect archaeological or paleontological resources.
 - **Action 7.3.2:** Require the preparation of archaeological or paleontological reports in area where there is potential to impact cultural resources.

- **Action 7.3.3:** Require that an archaeologist or paleontologist be retained to observe grading activities in areas where the probably presence of archaeological or paleontological resources is indicated.

Development proposals will be assessed for potential impacts on archaeological resources according to CEQA requirements. The City will require that significant impacts either be avoided or mitigated, which may involve further investigation and resource recovery.

Impact Analysis

Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

No Impact. Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5. State CEQA Guidelines Section 15064.5 provides guidance on defining when an existing structure may be a historical resource. However, archival research determined that no buildings, structures, roads, or infrastructure were present in the project area during the historic period. There are no resources within the project study area that have the potential to be considered historical resources for the purposes of CEQA. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines Section 15064.5. No impact would occur.

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

Less-than-Significant Impact with Mitigation Incorporated. The City has conducted consultation with Native American tribes, including the NAHC, in accordance with SB 18 and AB 52. The Gabrieleño Band of Mission Indians requested to have a certified Native American Monitor present during all ground-disturbing activities. While the previous site grading extensively altered the site and subsurface condition, the depth of remedial grading is unknown. The likelihood of archaeological resources present in previously disturbed soil is very low. However, the proposed project may require grading in native soil to accomplish its proposed geotechnical remediation. Even though the record search did not identify any archaeological resources on the project site or in the vicinity, grading within native soil has the potential to affect archaeological resources. Therefore, in order to reduce potential impacts to less-than-significant levels, the implementation of **Mitigation Measure MM CUL-1** is required.

MM CUL-1: Prior to the issuance of grading permits, the applicant shall retain a qualified archaeological monitor who shall prepare an Archaeological Resources Mitigation Monitoring Plan. The qualified archaeological monitor shall attend all pre-grading meetings to inform the grading and excavation contractors of the archaeological resources mitigation program and shall instruct them with respect to its implementation. The qualified archaeological monitor shall be on site during grading within native soil that has the potential to yield archaeological resources. Additionally, the Gabrieleño Band of Mission Indians shall be notified prior to any site excavation or grading activities, and be given the opportunity to have a certified Native American Monitor present during all ground-disturbing activities. If such resources are discovered and are in danger of loss and/or destruction, the qualified archaeological monitor

shall recover them. In instances where recovery requires an extended salvage time, the qualified archaeological monitor shall be allowed to temporarily direct, divert, or halt grading to allow recovery of resource(s) in a timely manner. Recovered archaeological resources, along with copies of pertinent field notes, photographs, and maps, shall be deposited in a certified curation facility that meets the standards of the California Office of Historical Preservation. The resources shall be recorded in the California Archaeological Inventory Database. Should archaeological resources with ties to Native Americans be discovered, the archaeological monitor shall immediately notify the City and the most likely tribal representative for the area if not already present during monitoring activities. A final monitoring report shall be submitted to the City within 30 days of the end of monitoring activities.

With implementation of MM CUL-1, potential impacts on archaeological resources would be less than significant.

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

Less-than-Significant Impact with Mitigation Incorporated. The project area sits in the late Miocene Capistrano Formation deposits, within which significant vertebrate fossil material may be encountered during excavations. Additionally, more complete vertebrate fossil material is likely to be found below landslide debris. Any fossils present could be damaged or destroyed as a result of earthwork during project construction. Substantial damage to or destruction of fossils associated with the geologic units found at the project site would result in a potentially significant impact. For these reasons, the project would be subject to **Mitigation Measure MM CUL-2**. Implementation of this mitigation measure would result in a less-than-significant impact on unique paleontological resources.

MM CUL-2. Prior to issuance of a grading permit, an Orange County-certified professional paleontologist will be retained by the developer to provide professional paleontological services, which will include survey, education of construction workers, on-site construction monitoring, appropriate recovery, and reporting. This mitigation measure and the details included below must be included on the approved project grading plans.

- Before site preparation (including vegetation clearing) and project earthwork begin, the professional paleontologist will conduct a surface survey and salvage operation in all parts of the project site where paleontologically sensitive materials may be exposed at the surface. The survey and salvage will ensure that exposed paleontological materials are recovered and properly prepared and curated, or protected from damage using exclusion fencing or other appropriate means. Protection measures, such as temporary fencing or flagging around the fossil remains, will be designed and installed under the direction of the qualified paleontologist in consultation with the developer and the City until the qualified paleontologist can safely salvage the fossil remains in a scientific manner. Without exception, the work will be conducted in conformance with the Orange County paleontological sensitivity guidelines (Eisentraut and Cooper 2002) and will meet the requirements for surface prospecting and surface collection.
- The developer will include in the scope of work for the paleontologist that all construction personnel receive training provided by the paleontologist to ensure recognition of fossil materials in the event any are discovered during earthwork.

- The paleontologist will conduct full-time monitoring for each concentrated grading activity during project construction in the Miocene Capistrano Formation (Eisentraut and Cooper 2002). If the project has more than one area of concentrated grading activity, more certified monitors may be required. The monitor will have authority to divert grading away from exposed fossils temporarily in order to recover the fossil specimens.
- If fossil remains are discovered during project-related activities, activities in the vicinity of the find will stop immediately until the paleontologist can assess the nature and importance of the find and recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials to be housed in an appropriate museum or university collection and may also include preparation of a report for publication. The work will be conducted in conformance with the Orange County paleontological sensitivity guidelines (Eisentraut and Cooper 2002) and meet the requirements for recovery, salvage, laboratory preparation, preparation to the point of taxonomic identification, transferal, and preparation and submittal. The City and the developer will be responsible for ensuring that recommendations regarding treatment and reporting are implemented; this will be accomplished by describing lines of communication and authority between the paleontologist, City, and developer; decision thresholds; and reporting procedures in the approved project grading plans.
- Fossils recovered will be prepared, identified, and catalogued before donation to the accredited repository designated by the City of Laguna Niguel.
- The retained qualified paleontologist will prepare a final report to be filed with the City. If applicable, the report will include a list of specimens recovered, documentation of each locality, and interpretation of fossils recovered and will include all specialists' reports as appendices. The report will be required regardless of the presence or absence of fossils.

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

Less-than-Significant Impact. As stated above, the project site has been extensively altered by previous ground disturbance consisting of grading and terracing. For these reasons, it appears that there is low potential for prehistoric or historic-period human remains to be encountered during construction. However, in the unlikely event that more recent human remains are discovered, the project construction manager is required to comply with Health and Safety Code Section 7050.5, which states that if human remains are discovered during construction, no further disturbance shall occur in the area of the discovery and the area must be protected until the county coroner inspects the discovery. Because existing laws and regulations would ensure that impacts on any buried human remains would be reduced to a level below significance, the proposed project's impact related to the potential of encountering human remains would be less than significant.

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

The geology and soils analysis presented below is based on the October 2014 (Revised February 17, 2015) *Feasibility Investigation/Review of 50-Scale Map Sunpointe, Tentative Tract 17433 Colinas Sur, Laguna Niguel, California* prepared by Stoney-Miller Consultants, Inc. and the April 24, 2015 *Response to City of Laguna Niguel Geotechnical Review Sheet dated March 20, 2015 SunPointe, Tentative Tract 17433 Colinas Sur, Laguna Niguel, California*, also by Stoney-Miller Consultants, Inc. (Appendix D).

Environmental Setting

Geologically the City of Laguna Niguel and the proposed project site are within the eastern portion of the San Joaquin Hills, a part of the Peninsular Ranges Geomorphic Province of Southern California. These hills are the product of the environmental conditions that have shifted and shaped the terrain

during geologic time. The tectonic forces acting on the Peninsular Ranges over the past 1–2 million years have broadly compressed and warped geologically young marine sediments from the sea to elevations over 1,000 feet in these hills. These bedrock sediments have been continuously worn by erosion into the subtle, rolling hillsides characteristic of southern Orange County.

From approximately 10,000 through 30,000 years ago, a distinctly wetter climate generated a dynamic erosional environment regionally and locally. This period coincides with an overall globally cooler climate and is responsible for most of topography seen in the City of Laguna Niguel today. This environment resulted in flowing rivers and deeply cut canyons flanked by uplifted and saturated hillsides. Numerous landslides occurred throughout Laguna Niguel and surrounding areas during this time. Areas requiring investigation of actual or possible landsliding are indicated on the left-hand panel of Figure 3-5. A zone of suspected landsliding underlies the project site as shown in the right-hand panel of Figure 3-5.

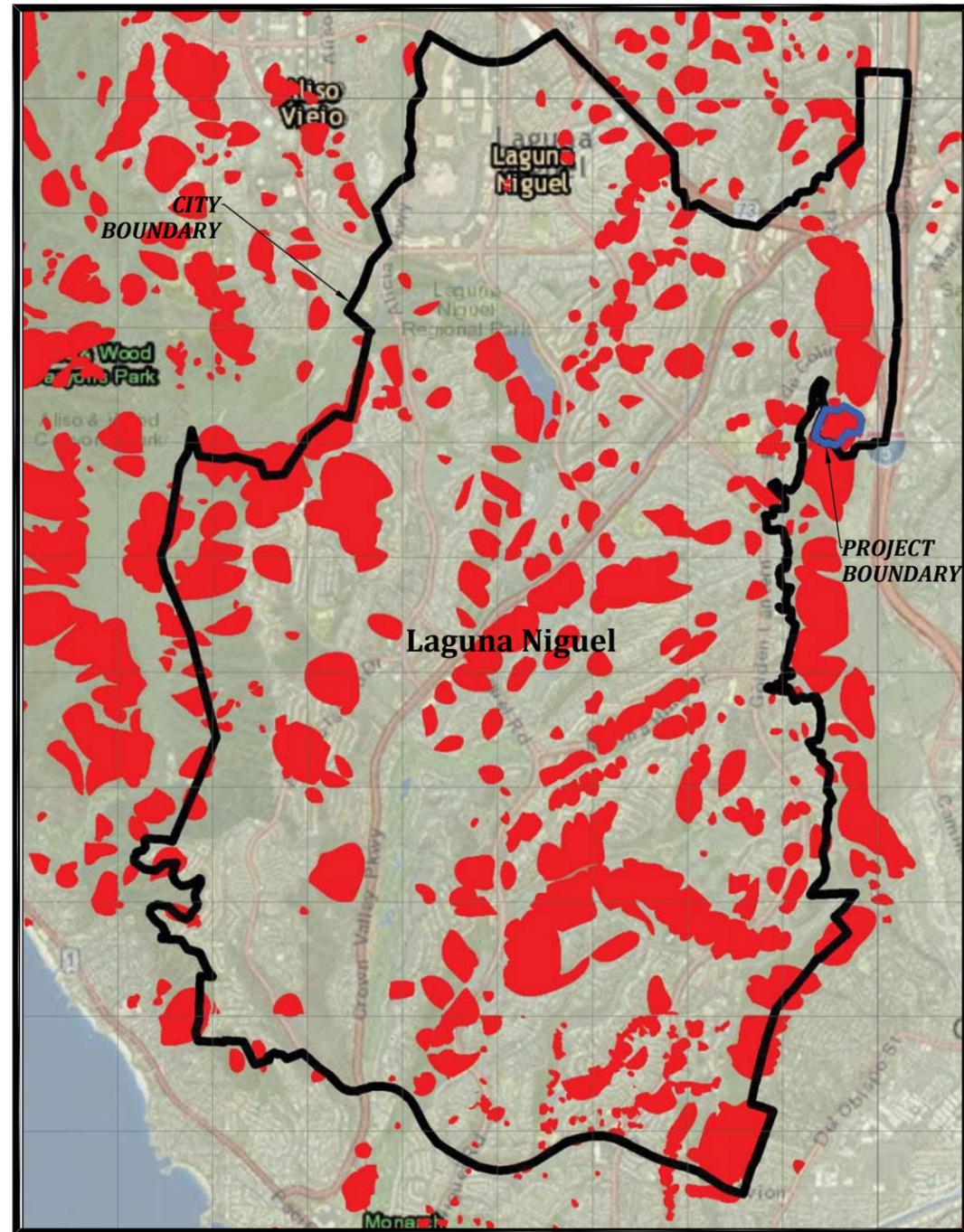
For the last approximately 10,000 years, a globally warmer and much drier climate has prevailed, slowing the erosion processes in the area, allowing the rivers to recede, the hillsides to drain, and the canyons to be naturally filled with sediments that partially buried the ancient landslides masses. Although locally weakened, the terrain in the City has become partially stabilized under the conditions present today due to the relatively quiet geologic and environmental setting. This is reflected in Figure 3-6, which was developed by the State of California to show zones of required investigation for landsliding (in blue) and liquefaction in sediment areas (in green). The left-hand panel of Figure 3-6 provides an overview of zones of required investigation within the City, and the right-hand panel provides a zoomed-in view around the project site. It is noted that the project site requires investigation for landsliding (blue areas), but not for liquefaction (green areas).

During the mid-1960s, the site was improved with roadways and utilities under permit with the County of Orange. There is little information to depict what followed, but at some point the stability of the area for residential development was questioned, placing a stop on construction. Development continued on the adjoining land to the west and north throughout the 1980s, while a series of on-site studies were conducted to evaluate the property's stability relative to further development.

On-site Soils and Geologic Units

The project site is underlain at shallow to moderate depth by bedrock of the Capistrano Formation, and is mantled by ancient Landslide materials, with a variety of thin surficial soils. Shallow soil failures are present in the adjacent upslope terrain and older stream deposits are present in the adjacent downslope property.

The Capistrano bedrock consists of consolidated silt and clay deposited in a deep offshore marine basin 2.5 to 12 million years ago. These sediments have been uplifted and form the hillsides in this portion of Laguna Niguel, extending into San Juan Capistrano, Mission Viejo, Dana Point, and much of San Clemente. The on-site ancient Landslide materials consist of translated blocks derived from former instability within the Capistrano Formation. These materials are moderately thick, extending a maximum of over 200 feet below existing grade. This depth reflects movement that shifted easterly into the ancient Oso Creek drainage, when the canyon was open over 100 feet deeper than it is today. The surficial deposits consist of the normal weathering products found on slopes and deposits of fill placed during the early improvement of the property.



MAP EXPLANATION

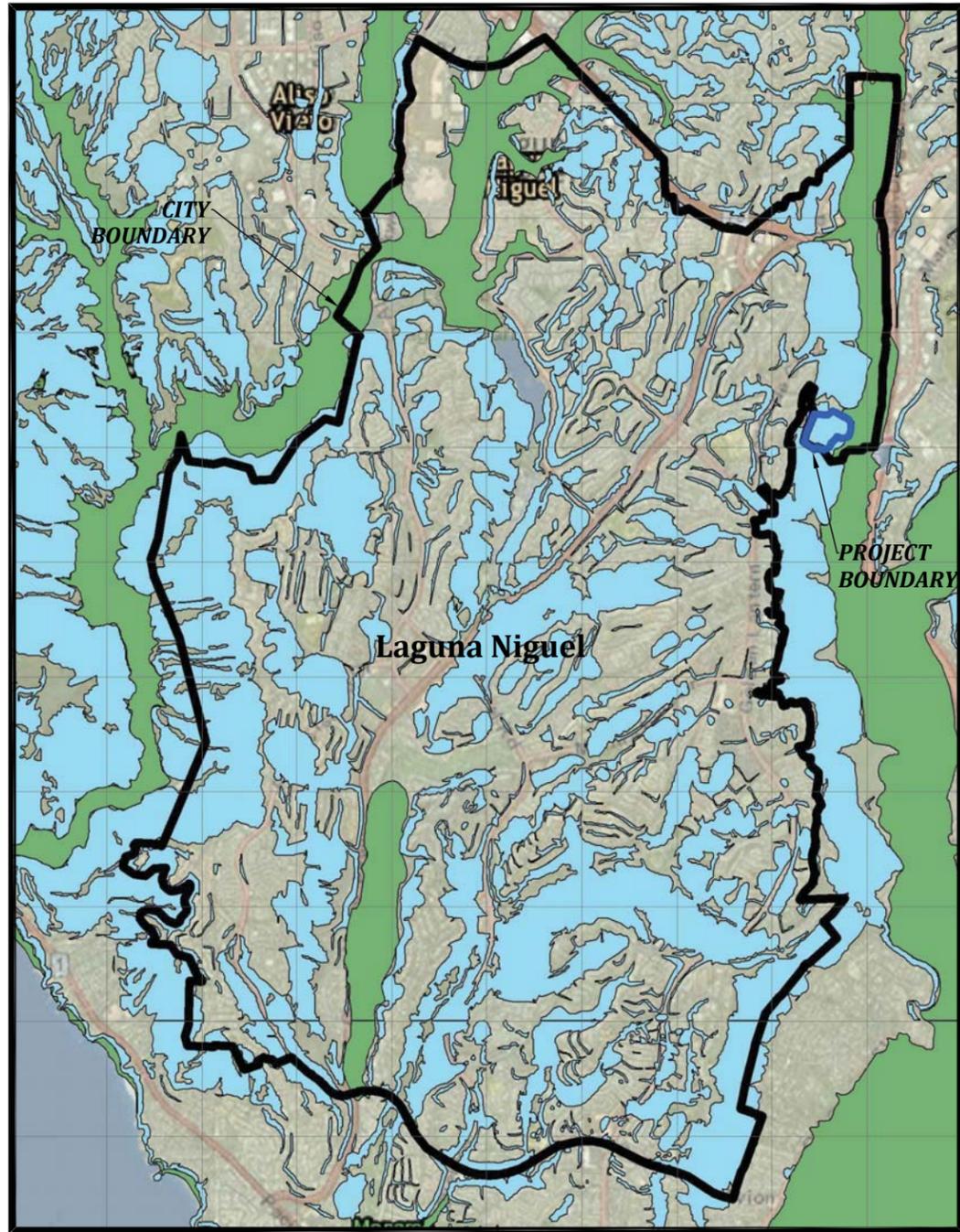
Zones of Required Investigation:

-  Landslide Inventory
-  Approximate Landslide Locations



Source: Hunsaker & Associate Irvine, Inc.

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Source: Hunsaker & Associates Irvine, Inc.

MAP EXPLANATION

Zones of Required Investigation:

Earthquake-Induced Landslides



Area where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Liquefaction



Area where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code Section 2693(c) would be required

Figure 3-6
Seismic Hazard Zones
SunPoint Residential Project

Faults and Seismicity

The closest active fault to the project area is the San Joaquin Hills Fault, approximately 3.3 miles away. Other active faults in the vicinity include the Newport-Inglewood Fault, approximately 14.9 miles to the northwest; the Elsinore Fault, approximately 17.9 miles to the northeast; the Whittier Fault, approximately 22 miles north; and the San Andreas Fault, approximately 49.3 miles to the northeast.

The proposed project is not within an Alquist-Priolo Earthquake Fault Zone. Therefore, it is unlikely to be affected by seismic ground rupture. The other potential seismic impact on the proposed project area is shallow ground cracking, which is common throughout Southern California and does not present a hazard to people or development. Like all of the City and Southern California, the property will be affected by strong ground shaking (greater than 0.05 g) from distant earthquakes during the design-life of the project.

Liquefaction

No liquefiable soils are present on the property. The property is not within a “zone of required investigation” for liquefaction; refer to Figure 3-6. Off-site slopes below the project site are supported by deeper alluvial soil material that is within a “zone of required investigation” for liquefaction. Previous studies on the adjacent property show that liquefaction effects are limited to minor vertical settlement, with no significant impact on support for the on-site slopes. Therefore, the project site is not subject to liquefaction risk.

Landslides and Soil Stability

Ancient landslides are present on the property and the property is within a “zone of required investigation” for earthquake-induced landslides; refer to Figures 3-5 and 3-6. In the present condition, the northern portion of the property is adequately stable for safe development. The southern portion of the property is stable, but not sufficiently stable to meet building code requirements for safe development. Corrective measures to accommodate future development are proposed, which would reduce potential landslide and stability impacts.

Site Investigation and Evaluation

Over the past 35 years, 39 technical publications on the project site and adjacent properties have been prepared. This study provides a compilation of the geologic and engineering data collected in those studies and a comprehensive analysis based on current codes. The consensus in these studies, from 1980 to present, indicates the northern portion of the site is suitably stable for development, while improvement is required in the southern portion of the property; refer to Figure 3-7. Therefore, there is no geotechnical reason that would have prevented the northern half of the project site from being developed. Development of the southern half of the property, which requires remediation to meet stability factors of safety suitable for development, appears to have remained undeveloped because conventional, cost-effective methods for stabilization require the cooperation of adjacent landowners. It appears off-site cooperation in the past may have been difficult, making development of the entire property infeasible.

Because groundwater has a significant impact on site stability and had not been significantly evaluated in the past, the current developer, through its professional consulting engineers, initiated a comprehensive investigation and testing of site groundwater conditions in mid-2012. The first

stage of this investigation included installation of three vertical groundwater monitoring wells with an average depth of 180 feet along the southern half of the property, as shown on Figure 3-8. Each well was separately outfitted with electronic monitoring devices. In May 2013, three horizontal drains (hydraugers) consisting of a 1.5-inch-diameter plastic slotted pipe were drilled 800 feet into the slope close to the monitoring wells. Subsequently, the fourth and fifth monitoring wells were installed in September 2013 and April 2014 on the far west and far south of the site (Figure 3-8). A fourth horizontal drain (hydrauger) was installed in November 2014, 1,000 lineal feet into the slope. A Cross Section X-X' slicing from west to east through the southern half of the site (Figure 3-9) illustrates the installation of the vertical groundwater wells and the horizontal drains (hydraugers) in relation to the earth materials located beneath the site surface.

The installation of the vertical monitoring wells and the hydraugers provided new data to better define groundwater than had been done in the past. The solid blue line in Figure 3-9 shows the existing groundwater levels at the site. Since installation, there has been outflow of ancient perched water from three of the four horizontal drains. The outflow has been measured and its impact recorded in the reduction of the perched water level in two of the monitoring wells. An example of this effect is shown in Figure 3-10, which depicts groundwater levels in Well EC-3. Following installation of the southern three hydraugers, the groundwater level began to drop in Well EC-3. Over the next 2 years, groundwater levels dropped 40 feet in Well EC-3 due to drainage (removal of groundwater) through the hydraugers. As of March 1, 2016, the groundwater outflow from the hydraugers has stabilized at about 200 gallons per day. As of March, 2016, the valves on the hydraugers have been closed, stopping the production of groundwater.

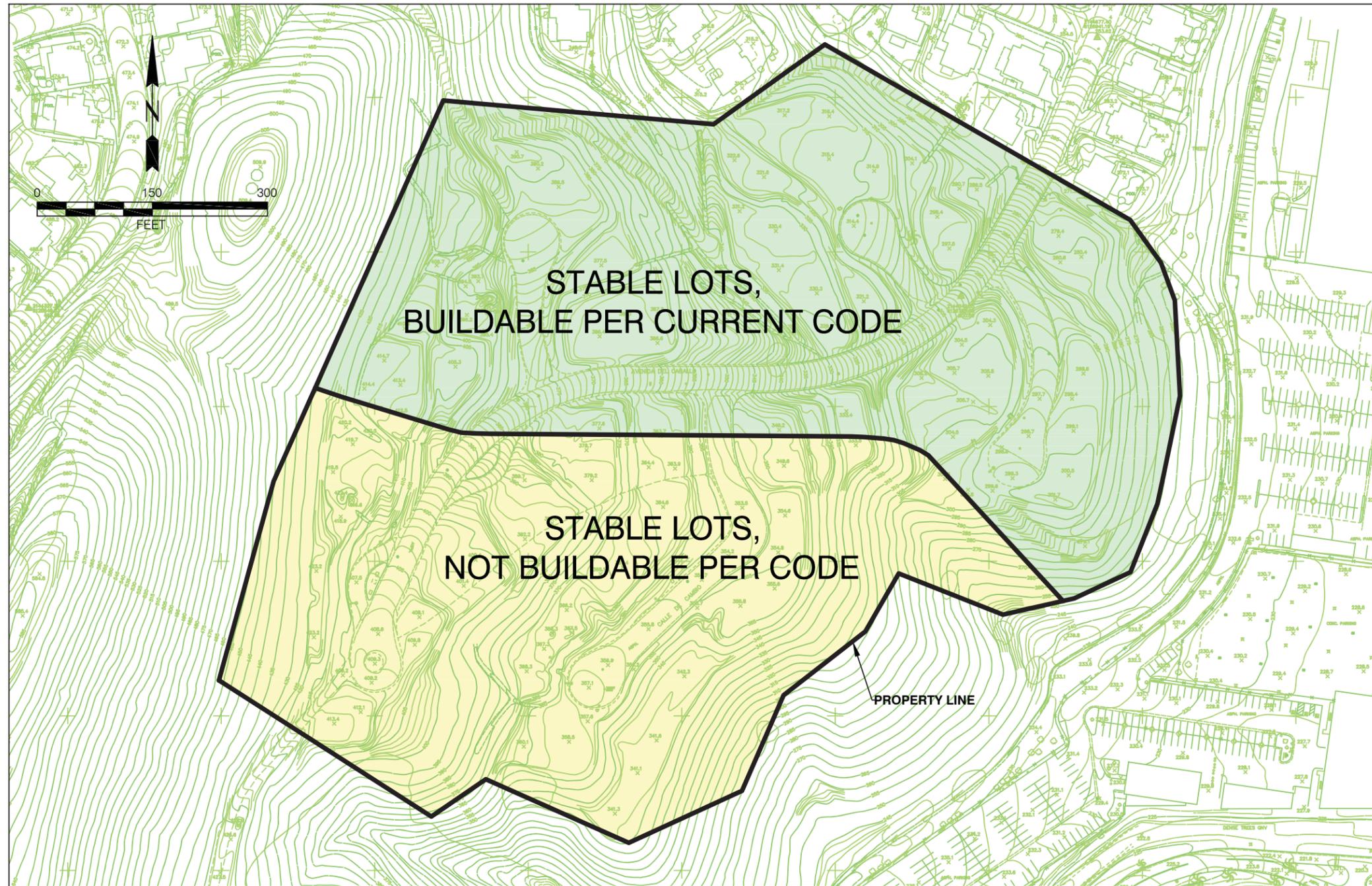
The data and knowledge gathered from the monitoring wells and hydraugers are unique to the recent studies. The previous investigations did not have evidence of groundwater levels that could be included in the analysis to meet the required factors of safety. Therefore, previous proposals were forced to rely on a geotechnical solution that required off-site landowner cooperation. The studies conducted for the proposed project incorporated groundwater levels into the stability evaluations of the southern half of the site. As a result, the evaluation found that strategic re-contouring of the site surface in combination with the installation of a relatively shallow subdrain system could improve the stability of the southern half of the site to buildable factor of safety levels per the current code. The planned re-contouring of the site is shown in Figure 3-11 whereby some areas will be lowered (cut) and some areas will be raised (filled). The site groundwater levels on the southern half of the site would be controlled by the existing hydraugers and installation of new subdrains and a chimney drain on the west of the site as shown on Figures 3-8 and 3-9. The planned subdrainage system would control groundwater levels to the design groundwater levels (dashed blue line) as shown in Figure 3-9. Collected groundwater would be conveyed to the on-site sewer system as shown in Figure 3-12.

Regulatory Setting

State

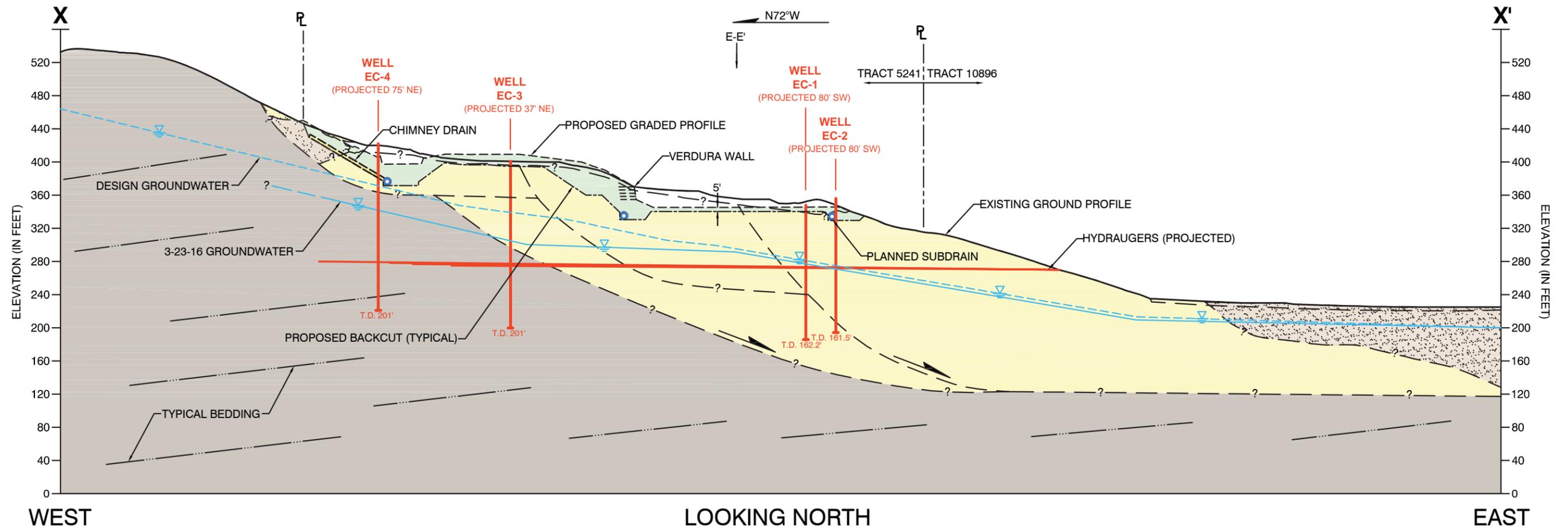
Alquist-Priolo Earthquake Fault Zoning Act

The primary purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. The law requires the state geologist to establish regulatory zones (known as Earthquake

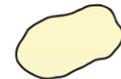


MAP EXPLANATION

-  Stable lots, buildable per current code
-  Stable lots, not buildable per code



MAP EXPLANATION

- | | | | |
|---|----------------------------|--|---------------------------------|
|  | Engineered fill soil |  | Alluvium and colluvium deposits |
|  | Ancient landslide deposits |  | Bedrock: Capistrano formation |

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Figure 3-9
Geotechnical Cross Section X-X'
SunPoint Residential Project

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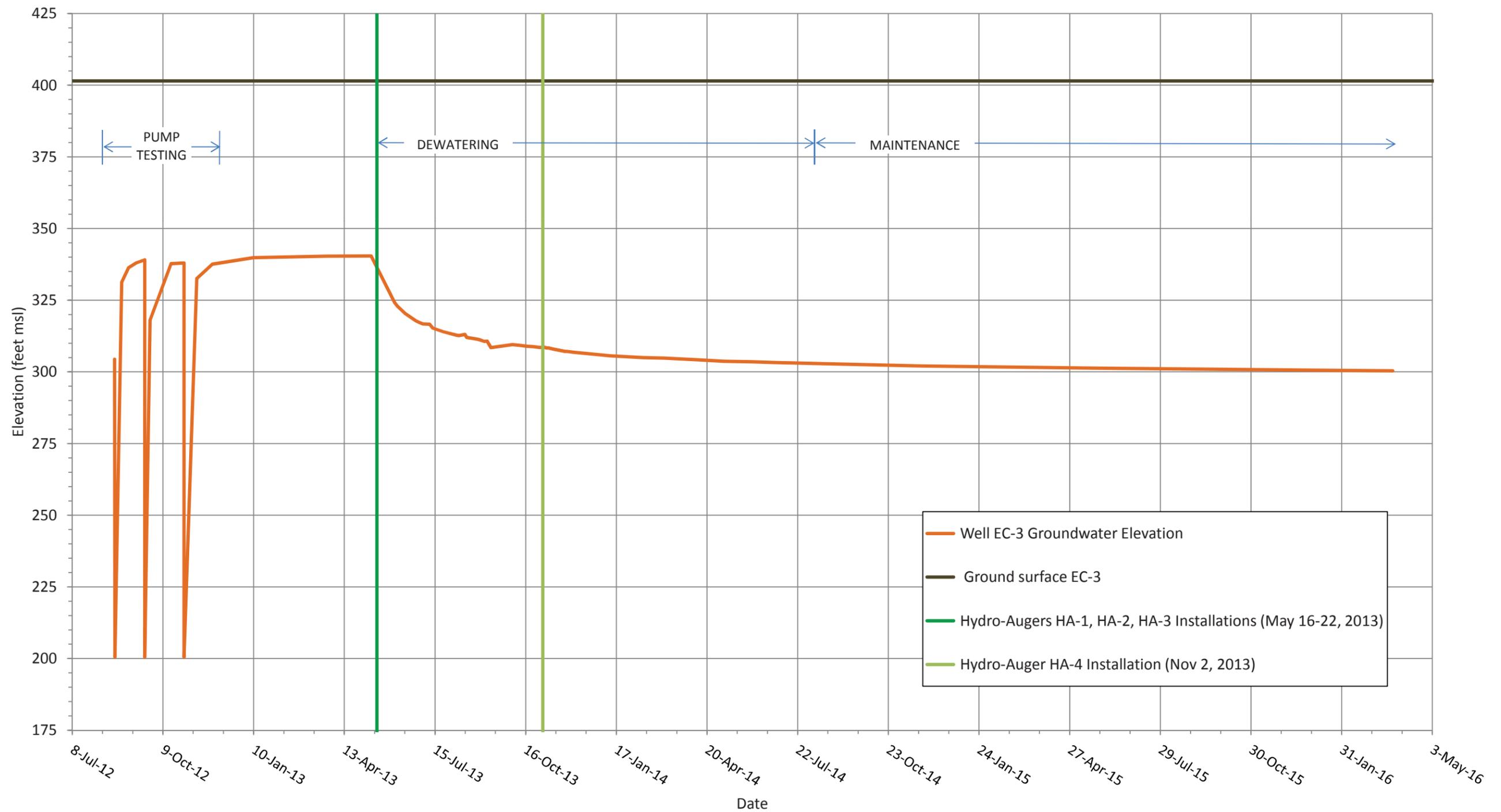
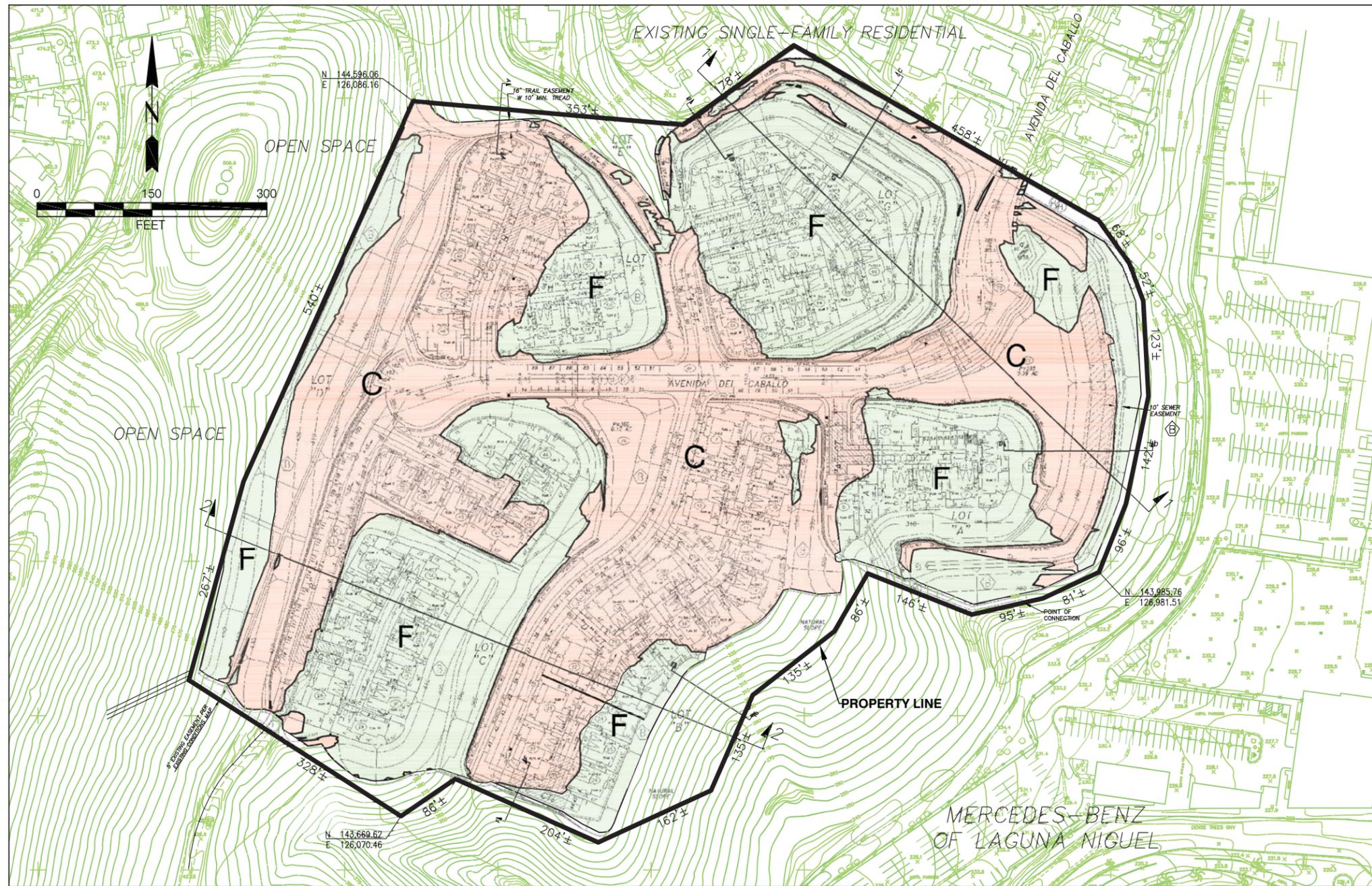


Figure 3-10
Groundwater Monitoring
SunPoint Residential Project





MAP EXPLANATION

- C Approximate location of proposed cut areas
- F Approximate location of proposed fill placement

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- LEGEND:**
- EXISTING SEWER LINE
 - S— PROPOSED SEWER LINE
 - EXISTING HYDRO AUGER DRAIN

Figure 3-12
Hydro Auger Exhibit
SunPoint Residential Project



Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults and issue locational maps to all affected cities, counties, and state agencies for their use in safe construction. Before a project may be permitted, a geologic investigation is required to demonstrate that proposed buildings would not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet) (California Department of Conservation 2013).

Seismic Hazards Mapping Act of 1990

The California State Seismic Hazards Mapping Act of 1990 addresses earthquake hazards other than surface fault rupture, including liquefaction and seismically induced landslides. The state establishes city, county, and state agency responsibilities for identifying and mapping seismic hazard zones and mitigating seismic hazards to protect public health and safety. The act requires the California Department of Conservation, California Geological Survey, to map seismic hazards and establishes specific criteria for project approval that apply within seismic hazard zones, including the requirement for a geologic and geotechnical report.

California Building Code

CCR Title 24 (California Building Code [CBC]) applies to all applications for building permits. The CBC (also called the California Building Standards Code) has incorporated the International Building Code, which was first enacted by the International Conference of Building Officials in 1927 and has been updated approximately every 3 years since that time. The current version of the CBC (2013) became effective on January 1, 2014.

Local agencies must ensure that development in their jurisdictions complies with guidelines contained in the CBC. Cities and counties can, however, adopt building standards beyond those provided in the code.

State Water Resources Control Board Construction Storm Water Program

Dischargers whose projects disturb 1 or more acres of soil or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit under Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation. The Construction General Permit requires the completion and implementation of a site-specific Storm Water Pollution Prevention Plan (SWPPP).

Local

City of Laguna Niguel General Plan-Seismic/Public Safety Element

The City is in a seismically active region. The intent of the following goals and policies is to reduce the potential for loss of life, injury, or property damage from flooding, seismic, or other geologic hazards.

- **GOAL 1.0:** A reduction of impacts from natural hazards that may affect the City of Laguna Niguel.
 - **Policy 1.1:** Mitigate potential adverse impacts of geologic and seismic hazards.

- **Policy 1.3:** Develop plans and programs to mitigate the effects of natural hazards.

Impact Analysis

Would the project:

- a. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

1. *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.*

No Impact. The project site is not within a State of California Alquist-Priolo Earthquake Fault Hazard Zone and no known active faults transect the project. The closest active fault is the San Joaquin Hills Fault, located approximately 3.3 miles from the project site. Therefore, fault rupture is not possible at the project site. No impact would occur.

2. *Strong seismic ground shaking?*

Less-than-Significant Impact with Mitigation Incorporated. As with most Southern California regions, the project site would be subject to strong ground shaking in the event of a major earthquake. Strong seismic shaking effects on the proposed project area (resulting from large earthquakes originating from nearby faults) could include landslides, ground cracking, and settlement. These effects are a possibility throughout the Southern California region and are dependent on on-site geology and on the distance between the proposed project area and the causal fault. The closest major active faults that could produce these effects in the proposed project area include the San Joaquin Hills Fault, the Newport-Inglewood Fault, the Elsinore Fault, the Whittier Fault, and the San Andreas Fault. The San Joaquin Hills Fault is the closest fault (approximately 3.3 miles from the proposed project area); as a result, the proposed project could be subject to future seismic shaking and strong ground motion resulting in structural damage.

Construction of the proposed project would be subject to applicable ordinances, goals, and policies of the current CBC (CCR Title 24); recommendations contained in the *Feasibility Investigation and follow-up Response to the City of Laguna Niguel* (Appendix D); and requirements of the LNGP, which would reduce anticipated impacts related to the proximity of earthquake faults by requiring the project to be built to withstand seismic ground shaking. **Mitigation Measure MM GEO-1** is required to ensure that the recommendations contained in the project's *Feasibility Investigation and Response Report* are implemented. After mitigation is incorporated, impacts would be less than significant.

MM GEO-1. The project applicant shall implement the recommendations contained in the *Feasibility Investigation and Response Report* prepared by Stoney-Miller, Inc. to reduce geologic hazards during implementation of the proposed project. Included in the report are site-specific recommendations involving grading and earthwork, slope stability, retaining walls, seismic design, construction materials, geotechnical observation, and testing and plan reviews. The recommendations are located on pages 13 through 32 of the *Feasibility Investigation and Response Report*, which is included as Appendix D to the SunPointe Residential Project Initial Study/Mitigated Negative Declaration.

3. *Seismic-related ground failure, including liquefaction?*

Less-than-Significant Impact. Implementation of the proposed project would not expose people or structures to substantial adverse effects from seismic-related ground failure, including liquefaction. Liquefaction occurs when saturated, low-density, loose materials (e.g., sand or silty sand) are weakened and transformed from a solid to a near-liquid state as a result of increased pore water pressure, which is caused by strong ground motion from an earthquake. Liquefaction generally occurs in areas underlain by silts and fine sands and where shallow groundwater exists. No liquefiable soils are present on the project site and the project site is not within a “zone of required investigation” for liquefaction (see Figure 3-6).

According to the *Feasibility Investigation and Response Report* (Appendix D), off-site portions of the east-facing slope below the project are provided subjacent support by alluvial soil material that is within a “zone of required investigation” for liquefaction. The potential for liquefaction was studied previously during development of the Mercedes Benz facility, which is subjacent to the project area on the east. These studies concluded that effects of liquefaction would be limited to minor vertical settlement on the Mercedes Benz site from isolated pockets of granular materials. Liquefaction of these granular materials would have no impact on the project site (Appendix D). Therefore, the risk of ground failure from liquefaction is less than significant. The risk of other seismically related failure, such as landslides, is discussed in the next section.

4. *Landslides?*

Less-than-Significant Impact with Mitigation Incorporated. The property is within an investigation zone for earthquake-induced landslides. Ancient Landslide materials underlie the majority of the property, making landslides a concern; as such, mitigation would be required for implementation of the proposed project on the southern portion of the property.

The data and knowledge gathered from the monitoring wells and hydraugers are incorporated into the stability evaluations of the southern half of the site (Appendix D). As a result, the evaluation found that strategic re-contouring of the property to lower ground levels (cut) on the southern half of the site and raise ground levels (fill) on the northern site in combination with the installation of a relatively shallow subdrain and chimney drain system in the southwestern portion of the site could improve the stability of the southern half of the site to buildable factor of safety levels per the current code. As required in the *Feasibility Investigation and Response Report* (Appendix D), remedial grading in the form of earthen buttresses and stabilization fills to improve slope stability, daylight shear keys, and fill slope keys with sub-drainage would be implemented to superficially stabilize perimeter and interior slopes. Additional stabilization techniques include the installation of caissons along the southeastern edge of the property where grading cannot be performed. These grading and stabilization activities, along with the other seismic mitigation recommendations included in the *Feasibility Investigation and Response Report* (Appendix D), would be implemented as part of **Mitigation Measure MM GEO-1** to minimize the potential impacts from secondary seismic phenomena, including landslides.

Because the operation of the subdrain system is integral to achieving the code-required stability for safe residential construction, long-term maintenance and monitoring of the wells is critical. Therefore, in addition to the recommendations included in MM GEO-1, the Applicant shall prepare a long-term groundwater maintenance and monitoring plan as described in **Mitigation Measure GEO-2**.

MM GEO-2. Prior to the issuance of a grading permit, the Applicant shall prepare a Long-Term Groundwater Maintenance and Monitoring Plan subject to the approval of the City. The Groundwater Maintenance and Monitoring Plan shall specify a plan for at least bi-annual monitoring and recording of groundwater levels, analysis of data, and conclusions and recommendations as needed; a plan for at least annual inspection of the system, with details on any potential maintenance, such as flushing, repair, or re-installation; and a funding plan through the Home Owners Association for the long-term maintenance and monitoring activities. The funding plan shall be incorporated into the Covenants, Conditions, and Restrictions and specified in the Home Owners Association budget submitted to the Bureau of Real Estate.

The installation of subsurface drainage systems in the western and southern portions of the project site would limit groundwater pressure in the hillside to safe levels. The combination of the subdrain system and re-contouring of the property would achieve the code-required stability for safe residential building throughout the property. After mitigation is incorporated, potential impacts from landslides would be less than significant.

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

Less-than-Significant Impact. Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil. Erosion is a condition that could adversely affect development on any site. Site grading could temporarily exacerbate erosion conditions, but erosion control measures would limit such effects. The Construction General Permit, which was adopted by the State Water Resources Control Board (SWRCB) as Water Quality Order 2009-0009-DWQ (effective July 1, 2010), is required for soil disturbance activities that would be greater than 1 acre. The project is expected to disturb an area greater than 1 acre and thus would be subject to the requirements of the Construction General Permit. As such, several best management practices (BMPs) would be implemented during construction, including sediment and erosion control measures to prevent pollutants from leaving the site. Furthermore, the LNGP Policy 1.1 would be adhered to, thus maintaining existing standards and requirements for grading and construction to eliminate erosion potential.

The majority of the subject property consists of a previously graded site. These areas are mantled with fill and no topsoil currently exists over the majority of the property. The proposed earthwork would provide code-required improvement along the area bordering the natural terrain, and may include limited amounts of topsoil. In the long-term condition, the open space portions of the site would be irrigated and planted according to the preliminary landscape plans. Irrigation is required to meet the new drought-tolerant standards, which limit irrigation to drip or micro-sprayers. The elimination of overhead irrigation would reduce the potential for topsoil runoff. Furthermore, the installation of plant material, including groundcover, is another means to maintain the presence of topsoil. Therefore, both potential short-term construction and long-term operational impacts related to soil erosion or loss of topsoil would be less than significant.

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

Less-than-Significant Impact with Mitigation Incorporated. As discussed in the *Feasibility Investigation and Response Report* (Appendix D), no liquefiable/lateral spreading prone, collapsible, or subsidence-prone soils are present on the property. The potentially unstable geologic unit on the project site is associated with ancient Landslides. As discussed in Section VI.a.4., the installation of

subsurface drainage systems in the western and southern portions of the project site would limit groundwater pressure in the hillside to safe levels. The combination of the subdrain system and re-contouring of the property would achieve the code-required stability for safe residential building throughout the property. Implementation of **Mitigation Measure MM GEO-1** and **Mitigation Measure MM GEO-2** are required to ensure that the recommendations contained in the project's *Feasibility Investigation and Response Report* (Appendix D) are implemented. After mitigation is incorporated that results in stabilization of the soils, impacts from unstable soil would be less than significant.

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

Less-than-Significant Impact with Mitigation Incorporated. Expansion index testing conducted during the *Feasibility Investigation and Response Report* indicated that on-site soils have a high expansion potential. Despite this high expansion potential, construction of the proposed project would be subject to applicable ordinances, goals, and policies of the current CBC (CCR Title 24), the LNGP, and recommendations contained in the *Feasibility Investigation and Response Report* (Appendix D), which would reduce potential geologic hazard impacts, including those related to expansive soils, to less-than-significant levels. **Mitigation Measure MM GEO-1** is required to ensure that the recommendations contained in the project's *Feasibility Investigation and Response Report* (Appendix D) are implemented. After mitigation is incorporated, impacts from expansive soils would be less than significant.

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

No Impact. No septic tanks or alternative wastewater disposal systems are proposed as part of the project. Therefore, soils would not be required to support septic tanks once the project is implemented. No impact would occur.

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

Environmental Setting

According to EPA, a greenhouse gas (GHG) is any gas that absorbs infrared radiation in the atmosphere. This absorption traps heat within the atmosphere, maintaining the Earth’s surface temperature at a level higher than would be the case in the absence of GHGs. Increasing levels of GHGs resulting from human activities have increased levels of most of these naturally occurring gases in the atmosphere, which has and will continue to result in an increase in the temperature of the Earth’s lower atmosphere, a phenomenon that is commonly referred to as *global warming*. Warming of the Earth’s lower atmosphere induces a suite of additional changes, including changes in global precipitation patterns; ocean circulation, temperature, and acidity; global mean sea level; species distribution and diversity; and the timing of biological processes. These large-scale changes are collectively referred to as *global climate change*.

The GHGs listed by the Intergovernmental Panel on Climate Change (IPCC) include carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Intergovernmental Panel on Climate Change 2007). California law and the State CEQA Guidelines contain a similar definition of GHGs (Health and Safety Code Section 38505(g); 14 CCR Section 15364.5). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources.

To simplify reporting and analysis, GHGs are commonly defined in terms of a global warming potential (GWP). IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO₂ equivalents (CO₂e). The GWP of CO₂ is, by definition, 1. GHG emissions are quantified and presented in terms of metric tons (MT) of CO₂e emitted per year.

Regulatory Setting

State CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions, and Section 15064.4(a) provides that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. State CEQA Guidelines Section 15064.4(b) also provides that, when assessing the significance of impacts from GHG emissions, a lead agency should consider (1) the extent to which the project may increase or reduce GHG emissions as compared to existing conditions, (2) whether the project’s GHG emissions exceed a threshold of significance that the lead agency determines applies to the project, and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Orange County and the City of Laguna Niguel have not yet completed a climate action plan (CAP) to reduce GHG emissions within the jurisdictional boundaries. CAPs typically include a number of GHG reduction measures that target GHG emissions associated with transportation, building energy, waste, water, and other activities within a municipality.

The State CEQA Guidelines do not provide numeric or qualitative thresholds of significance for evaluating GHG emissions. While SCAQMD has not adopted a threshold for assessing the significance of GHG emissions for land use development projects, SCAQMD has suggested that it would be appropriate for a lead agency to use a threshold of 3,000 MT CO_{2e} per year (SCAQMD 2008b).

The Global Warming Solutions Act of 2006 (AB 32) is the overarching law that requires the State to set statewide GHG reduction targets. To achieve these goals, ARB has established an emissions cap and developed a Scoping Plan to identify mandatory strategies for reducing statewide GHG emissions. In addition, the California Climate Action Team was formed, which consists of members of various state agencies tasked with identifying strategies to reduce GHG emissions. Several other bills have been passed as companions to AB 32, such as SB 1368 (electricity generation standards), SB 97 (CEQA analysis for GHGs), Low Carbon Fuel Standard, SB 375 (Regional Transportation Planning and GHG emissions), CalGreen building standards, and other plans to achieve the goals of AB 32.

The AB 32 Scoping Plan details specific GHG emissions-reduction measures that target specific GHG emissions sources. The Scoping Plan considers a range of actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms (e.g., a cap-and-trade system), including mobile-source emissions-reduction measures (Pavley, Low Carbon Fuel Standard, vehicle efficiency measures); energy production-related emissions-reduction measures (natural gas transmission and distribution efficiency measures, natural gas extraction efficiency measures); and the renewable portfolio standard (electricity).

Impact Analysis

Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. Construction of the proposed project would result in short-term generation of GHG emissions from construction equipment exhaust and energy consumption. Construction GHG emissions were calculated using the CalEEMod land use emissions estimation model. Detailed in the CalEEMod model output sheets that are provided in Appendix A, total construction emissions over the entire construction period would be 1,037 MT CO_{2e}. Because construction emissions are short-term, temporary emissions, for purposes of calculating annual GHG emissions, the construction emissions are amortized over 30 years, which in the case of the proposed project results in 35 MT CO_{2e} per year.

Area and mobile sources as part of the proposed project's operational phase would generate GHG emissions over the long-term period. Landscaping and maintenance equipment exhaust, natural gas combustion, waste decomposition, water conveyance, and vehicle trips are the primary sources of operational GHG emissions that would occur. Changes in GHG emissions due to vegetation removal were not assessed for this analysis. The site is currently sparsely vegetated, primarily with ruderal

nonnative vegetation and grasses. Small patches of native coastal sage scrub occupy portions of the site. In the developed condition, approximately 50% of the site would remain landscaped open space. The landscaping would comply with drought-tolerant guidelines to reduce outdoor water consumption. Compared to existing vegetation, the developed condition would provide more and denser vegetation. However, this analysis has not taken credit for carbon sequestration that occurs in the developed condition. It was also assumed that chlorofluorocarbon emissions would not be generated as a direct result of the proposed project.

Emissions in the first year of operation generated by the proposed project are presented in Table 3-11. As shown therein, the proposed project is estimated to generate 1,270 MT CO₂e.

Table 3-11. Proposed Project GHG Operational Emissions

Source	Pollutant Emissions (MT/year)
	CO ₂ e
Construction Emissions amortized over 30 years	35
Operational Emissions	
Area	24
Energy	255
Mobile	886
Waste	38
Water	32
Total Project Emissions	1,270
Significance Threshold	3,000

Source: CalEEMod modeling output provided in Appendix A.
CO₂e = carbon dioxide equivalent
MT = metric tons

Because emissions would be below the significance threshold of 3,000 MT CO₂e, project construction and operational emissions would have a less-than-significant effect on the environment.

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

Less than Significant Impact. The State of California has adopted laws and policies to regulate and reduce GHG emissions. In response to the Governor’s Executive Order S-3-05, California developed AB 32, which specifically aims to reduce statewide GHG emissions to 1990 levels by 2020 and instructed ARB to adopt regulations that reduce emissions from significant sources of GHGs and establish a mandatory GHG reporting and verification program. The proposed project would utilize equipment compliant with State and federal emissions requirements, such as minimum Tier 2 off-road construction equipment, and adhere to AB 32 Scoping Plan control measures adopted by the State of California during construction and operation. The proposed project would therefore not conflict with the goals of AB 32, regulations, or Executive Order S-3-05.

Furthermore, recent legislation such as SB 743 resulted in several changes to CEQA pertaining to projects located in areas served by transit. SB 743 exempts certain transit-oriented projects from CEQA review that meet the following four criteria.

- The project is residential, employment center, or mixed use.
- The project is located in a transit priority area.
- The project is consistent with a Specific Plan for which an EIR was certified.
- The project is consistent with an adopted sustainable communities strategy.

While the proposed project is not within an adopted Specific Plan area and the City does not have an adopted Sustainable Communities Strategy, the proposed project is a residential project within a “transit priority area,” which is defined as within 0.5 mile of a transit facility. One purpose of SB 743 is to encourage residential and employment around transit as a strategy to reduce GHG emissions. The proposed project is consistent with this strategy.

At the local level, the project would comply with the requirements of the CalGreen building code and water-saving restrictions, including drought-tolerant landscaping. The project would also comply with AB 939 to reduce waste, all of which contribute to reducing GHG emissions.

Finally, the proposed project would not exceed SCAQMD’s contemplated, though not adopted, threshold of 3,000 MT CO₂e for GHG and, as such, would not have a significant impact on GHG emissions. Given the lack of significant GHG emissions at the project level and the requirements to comply with federal, state, and local regulations, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, including AB 32 and the Climate Change Scoping Plan. Therefore, a less-than-significant impact related to GHG emission reduction plans, policies, and regulations adopted for the purpose of reducing GHG emissions would occur.

VIII. Hazards and Hazardous Materials	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The hazardous materials information contained herein is based on the August 3, 2015 *Radius Map Report with Geocheck* (Appendix E) prepared by Environmental Data Resources, Inc (EDR).

Environmental Setting

The project site encompasses 19.5 acres of hillside property. The project site is situated on an east-facing hillside and bound on the north by Country View Estates residential development, on the east by Mercedes Benz of Laguna Niguel, on the south by a slope descending to Rancho Capistrano and Saddleback Church, and on the west by open space. The site has been previously mass graded and includes paved streets, curbs, gutters, manufactured slopes, and a trail. The site also includes existing underground and above-ground utilities, including an active MNWD pump station, water mainlines, gas, electric, telephone, fire hydrants, electric transformers, and light standards. There are currently no buildings on the project site.

Hazardous Materials

No buildings exist on the project site; therefore, no hazardous materials are being stored on site.

Hazardous Materials Database Results

On Site

The proposed project site was not listed in any EDR records researched.

Off Site

Twelve nearby sites were identified during the EDR records search. The names, locations, databases of record, and environmental statuses of the sites are included in the following table.

Table 3-12. Hazardous Materials Sites within 1 Mile of the Project

Site	Address	Distance from the Project	Database(s)	Site Status Summary
Capistrano Valley High School Theatre	26301 Via Escolar	0.414 mile to the E	SCH, NPDES, Envirostor	School investigation site under the Department of Toxic Substances Control's Site Cleanup Program. No contaminants found on site and No Further Action status granted in 12/2009.
Blue Diamond Materials Plant	26772 Avery Parkway	0.676 mile to the ESE	Orange Co. Industrial Site, Envirostor	Site listed as an evaluation site (2001). Contaminants and contaminated media not specified. Site is hydraulically downgradient from proposed project area.
Exxon Station 7-3732	28692 Camino Capistrano	0.164 mile to the ENE	LUST	Leaking underground storage tank site. Gasoline-impacted groundwater. Case opened in 6/1992 and granted closure in 4/2000.
Rancho Capistrano Community Church	29251 Camino Capistrano	0.230 mile to the SE	LUST, UST, HIST UST, CA HIST Cortese	Leaking underground storage tank site. Diesel-impacted soil only. Case opened in 2/1990 and granted closure in 1/1991. Soil over-excavated and removed from site.
Mission Viejo Volvo	28802 Marguerite Parkway	0.252 mile to the ENE	LUST, CA HIST Cortese	Leaking underground storage tank site. Waste oil-impacted soil only. Case opened in 10/1989 and granted closure in 10/1991. Soil over-excavated and removed from site.

Site	Address	Distance from the Project	Database(s)	Site Status Summary
Mission Viejo Imports	28701 Marguerite Parkway	0.294 mile to the ENE	LUST, RCRA NonGen, FINDS, HIST Cortese, HIST UST, HAZNET	Leaking underground storage tank site. Waste oil-impacted soil only. Case opened in 7/1986 and granted closure in 1/1987. Soil over-excavated and removed from site.
Shell Oil	Avery Parkway at Interstate 5	0.337 mile to the NE	LUST, CA HIST Cortese	Leaking underground storage tank site. Waste oil-impacted soil only. Case was both opened and closed in 1/1985.
Shell Oil	28662 Camino Capistrano	0.337 mile to the NE	LUST, CA HIST Cortese	Leaking underground storage tank site. Diesel and gasoline-impacted groundwater. Case opened in 4/1989 and granted closure in 11/2014.
Texaco Service Station	28681 Marguerite Parkway	0.370 mile to the ENE	LUST	Leaking underground storage tank site. Three separate releases. First release involved gasoline-impacted groundwater. Case opened in 12/1986 and granted closure in 2/1997. Second release occurred in 10/1991 and was granted closure 2/1997. Contaminated media included gasoline-impacted groundwater. The third release occurred in 10/2002 and was granted closure in 2010. Also involved gasoline-impacted groundwater.
Allen Oldsmobile-Cadillac Inc.	28332 Camino Capistrano	0.495 mile to the NNE	LUST, HIST Cortese, HIST UST	Leaking underground storage tank site. Diesel-impacted groundwater. Case opened in 9/1986 and granted closure in 6/1989.
Avery Foreign Car Service	28992 Via Escolar	0.223 mile to the E	SWEEPS UST	The site was listed as an active underground storage tank facility under the Statewide Environmental Evaluation and Planning System. No violations were associated with this listing.
Coast to Coast Auto Inc.	28892 Marguerite Parkway	0.198 mile to the E	EDR US HIST Auto Stat	The site was listed as being a historical auto maintenance facility. No violations were associated with this listing.

E = east

EDR = Environmental Data Resources, Inc.

ENE = east/northeast

ESE = east/southeast

FINDS = facility index system

HIST = historical

LUST = leaking underground storage tank

NE = northeast

NNE = north/northeast

NonGen = Non-generator

NPDES = National Pollutant Discharge Elimination System

RCRA = Resources Conservation and Recovery Act

SCH = State Clearinghouse

SE = southeast

SWEEPS = Statewide Environmental Evaluation and Planning System

UST = underground storage tank

Nearby Schools

The nearest school to the proposed project site, Capistrano Valley High School is across I-5, approximately 0.25 mile to the east. Niguel Hills Middle School, another nearby school, is approximately 0.3 mile to the west.

Nearby Airports

The proposed project area is not within an airport land use plan area or within 2 miles of a public airport or public use airport or in the vicinity of a private airstrip. The closest airport is John Wayne Airport, approximately 14 miles to the northwest. The Skylark Field Airport is approximately 22.5 miles to the northeast, MCOLF Camp Pendleton Airport is more than 25 miles to the southeast, and Fullerton Municipal Airport is approximately 28 miles to the north.

Emergency Planning

The Orange County Sheriff's Department's (OCSD's) Emergency Management Division provides emergency management and preparedness services to the unincorporated areas of Orange County and supports the efforts of the Orange County Operational Area. The Operational Area encompasses all County departments and agencies, public and private organizations, and the general population within the boundaries of Orange County. The Sheriff-Coroner Department is the lead agency in matters of emergency preparedness and disaster response.

Wildfire Risk

According to the figure "Fire Hazards Severity Zones in LRA - Orange County" from the Fire and Resource Assessment Program, California Department of Forestry and Fire Protection (CAL FIRE), the proposed project is not within a High Fire Risk Area (CAL FIRE 2011). Although this is the case, the proposed project site is near undeveloped/open space to the west and a highly vegetated Rancho Capistrano and Saddleback Church area to the south, and thus can be subject to wildfires.

Regulatory Setting

Federal

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act (RCRA) established an EPA-administered program to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous.

Cortese List

U.S. Code 65962.5 (commonly referred to as the Cortese List) includes Department of Toxic Substances Control (DTSC)-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by SWRCB as having underground storage tank leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)

U.S. Department of Transportation Hazardous Materials Regulations cover all aspects of hazardous materials packaging, handling, and transportation. Parts 107 (Hazard Materials Program), 130 (Oil

Spill Prevention and Response), 172 (Emergency Response), and 177 (Highway Transportation) would apply to the proposed project and/or surrounding uses.

State

California Health and Safety Code

DTSC, a department of the California Environmental Protection Agency, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Division 20, Chapter 6.5 of the California Health and Safety Code deals with hazardous waste control through regulations pertaining to transportation, treatment, recycling, disposal, enforcement, and permitting of hazardous waste. Division 20, Chapter 6.10 contains regulations applicable to the cleanup of hazardous materials releases. Title 22, Division 4.5 contains the environmental health standards for the management of hazardous waste. This includes standards for identification of hazardous waste (Chapter 11) and standards applicable to transporters of hazardous waste (Chapter 13).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9)

This program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA is designed to protect public health and the environment from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes. This is accomplished via inspections, emergency response, enforcement, and site mitigation oversight. The CUPA for the City of Laguna Niguel is the Orange County Environmental Health Division.

California Code of Regulations, Title 8—Industrial Relations

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for ensuring worker safety in the workplace. Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. These standards would be applicable to both construction and operation of the project. The standards included in Cal OSHA's Title 8 include regulations pertaining to hazard control (including administrative and engineering controls), hazardous chemical labeling and training requirements, hazardous exposure prevention, hazardous material management, and hazardous waste operations.

California Labor Code (Division 5, Parts 1 and 7)

The California Labor Code is a collection of regulations that include the regulation of the workplace to ensure appropriate training on the use and handling of hazardous materials and the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5 ensures that employees who are in charge of the handling of hazardous materials are appropriately trained on, and informed of, the materials they are handling. Division 5, Part 7

ensures that employees who work with volatile flammable liquids are outfitted in appropriate safety gear and clothing.

California Department of Forestry and Fire Protection Fire Prevention Program

The program encompasses multiple facets of fire prevention techniques, including fire engineering, vegetation management, fire planning, education, and law enforcement. These techniques can include fire break construction and other fire fuel reduction activities that lessen the risk of wildfire to communities and evacuation routes, and brush clearance around communities, along roadways, and evacuation routes. The fire prevention program also includes defensible space inspections, emergency evacuation planning, fire prevention education, fire hazard severity mapping, implementation of the State Fire Plan, and fire-related law enforcement activities such as arson investigation.

State Water Resources Control Board Construction Storm Water Program

Dischargers whose projects disturb 1 or more acres of soil or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres are required to obtain coverage under the Construction General Permit under Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation. The Construction General Permit requires the completion and implementation of a site-specific SWPPP.

Local

City of Laguna Niguel General Plan-Seismic/Public Safety

The primary purpose of the Seismic/Public Safety Element is to protect the community from natural and manmade hazards.

Goal 2: Protection of the public and sensitive environmental resources from exposure to hazardous materials and waste

- **Policy 2.1:** Reduce risks of exposure to hazardous materials and waste through careful land use and hazardous materials management planning.
- **Policy 2.2:** Reduce risk of exposure by improving the safety of hazardous materials/waste transportation.

Goal 3: A safe and secure community free from the threat of personal injury and loss of property.

- **Policy 3.1:** Provide fire protection to ensure the public's health and safety.
- **Policy 3.2:** Reduce the risk of wildland fire through fuel modification programs.

Impact Analysis

Would the project:

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

Less-than-Significant Impact. Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of

hazardous materials. Construction of the proposed project is expected to occur within 1 year, during which time routine transport, use, and disposal of hazardous materials such as fuel, solvents, paints, oils, grease, and caulking would occur. Such transport, use, and disposal must be compliant with applicable regulations such as the RCRA, Department of Transportation Hazardous Materials Regulations, local CUPA regulations, and the LNGP. Although small amounts of solvents, paints, oils, grease, and caulking would be transported, used, and disposed of during the construction phase, these materials are typically used in construction projects and would not represent the transport, use, and disposal of acutely hazardous materials.

Small amounts of hazardous materials would be stored and used under normal operations of the proposed project and would consist of materials used in homes, such as solvents and cleaners. These products are generally used in small, localized amounts, and any spills that may occur are cleaned up as soon as they occur. Additionally, no acutely hazardous materials are expected to be handled under normal project operations. Impacts would be less than significant.

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

Less-than-Significant Impact. Implementation of the proposed project is not expected to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. As mentioned under VIII.a, construction-related hazardous materials would be used during construction of the proposed project, including fuel, solvents, paints, oils, grease, and caulking. It is possible that any of these substances could be released during construction activities. However, compliance with federal, state, and local regulations, in combination with construction BMPs implemented from a SWPPP as required by the Construction General Permit, would ensure that all hazardous materials are used, stored, and disposed of properly, which would minimize potential impacts related to a hazardous materials release during the construction phase of the project. As discussed above, no acutely hazardous materials are expected to be used or stored on site during the operational phase, and any hazardous materials handled would be typical of household hazardous materials that are generally used in small, localized amounts.

Twelve hazardous materials sites were identified during the EDR database search as being within a 1-mile radius of the proposed project area. Of those twelve sites, eight sites were listed as leaking underground storage tank (LUST) sites. All eight LUST sites have received closure from the oversight agency. Of the four remaining sites, two were included in the Envirostor database, one as a school investigation site and the other as an evaluation site. The school investigation site was granted No Further Action status in 2009. The evaluation site listing did not specify the contaminated media nor the contaminant(s) of concern. Although this is the case, the site is hydraulically down-gradient and 0.676 mile from the proposed project area. Due to the site's location (down-gradient) and distance from the proposed project area, the likelihood of contamination migrating to the proposed project area from this site is extremely low. Of the remaining two sites, one was listed exclusively in the Statewide Environmental Evaluation and Planning System UST and the other in the EDR US Hist Auto Stat database. No violations were identified as part of these listings. Impacts would be less than significant.

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

Less-than-Significant Impact. Implementation of the proposed project would not create any significant impacts associated with hazardous emissions or handling of acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. Although the proposed project would involve hazardous materials typical of a construction project, it is expected that the proposed project would be operated in compliance with federal, state, and local regulations. Additionally, any potential construction-related hazardous releases or emissions would be from commonly used materials such as fossil fuels, solvents, and paints that would not be considered acutely hazardous materials. Any spills would be localized and immediately contained and cleaned. Therefore, construction activities would not affect existing or proposed schools, including Capistrano Valley High School, approximately 0.25 mile from the project site.

Small amounts of hazardous materials would be stored and used under normal operations of the proposed project and would be typical hazardous materials used in homes, such as solvents and cleaners. Additionally, the proposed project is a residential development, and therefore no acutely hazardous materials, substances, or waste are expected to be handled or stored on site. Potential impacts from both construction and operation would be less than significant.

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

No Impact. Implementation of the proposed project would not create any significant impacts associated with being included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The proposed project was not identified in any of the EDR databases researched; therefore, no impact would occur.

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

No Impact. Implementation of the proposed project would not result in a safety hazard for people residing or working in the project area because the proposed project area is not within an airport land use plan area or within 2 miles of a public airport or public use airport. No impact would occur.

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?*

No Impact. Implementation of the proposed project would not result in a safety hazard for people residing or working in the project area because the proposed project area is not within the vicinity of a private airstrip. No impact would occur.

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

Less-than-Significant Impact. Implementation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would not result in any substantial traffic queuing along Avenida del Caballo or Charreadas and would not allow any construction vehicles or equipment to

park or remain stationary within the roadway. Furthermore, all large construction vehicles entering and exiting the site would be guided by personnel using signs and flags to direct traffic.

As discussed in Section XVI, *Transportation/Traffic*, emergency access to the site would be from the gated entry at Avenida del Caballo, which off the project site measures 36 feet curb-to-curb within 46 feet of right-of-way. Once on site, Avenida del Caballo retains its 36-foot width. In-tract streets vary between 28 feet for parking on one side to 36 feet for parking on both sides. Internal motor courts measure 24 feet wide. In all cases, sufficient street width is provided for emergency services. Moreover, the project would not include any characteristics (e.g., permanent road closures, long-term blocking of road access) that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity.

During both construction and operational activities, the proposed project would be required to comply with applicable requirements set forth by the OCSA's Emergency Management Division, the County's Emergency Operations Center (Orange County Sheriff's Department 2014), the Orange County Fire Department, the Orange County Environmental Health Division, and the LNGP. Evacuation instructions and routes are provided by the County's Emergency Operations Center and are facilitated by the responding agencies such as OCFA and OCSA. Therefore, impacts during both construction and operation would be less than significant.

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less-than-Significant Impact. Implementation of the proposed project would not 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. According to information obtained from CAL FIRE, the proposed project site is not within a CAL FIRE Very High Fire Hazard Severity Zone (CAL FIRE 2011). Although this is the case, the proposed project site is near undeveloped/open space to the west and a highly vegetated Rancho Capistrano and Saddleback Church area to the south, and thus can be subject to wildfires.

The Applicant has met with OCFA and prepared a fuel modification plan that incorporates both vegetation management and alternate means and methods. That fuel modification plan was approved by OCFA in June 2015 and is included in Appendix F. The alternate means and methods incorporated into the plan include a radiant heat zone and ember intrusion zone depending on location of the structure. Therefore, implementation of the fuel modification plan as part of project construction would reduce the risk of impacts from wildfire to less-than-significant levels.

IX. Hydrology and Water Quality		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f.	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h.	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j.	Contribute to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The hydrology and water quality information contained herein is based on the City-approved April 2015 Preliminary Hydrology Analysis Site Development Permit: SP12-07P "SunPointe" Vesting

Tentative Tract Map No. 17433; and on the Conceptual Water Quality Management Plan “SunPointe” Vesting Tentative Tract Map No. 17433, City of Laguna Niguel, California, prepared by Hunsaker & Associates Irvine, Inc., included in Appendices G and H, respectively.

Environmental Setting

Existing Topography and Drainage

The project area is on a hillside facing east with moderate relief. Surface elevations range from approximately 250 feet to 455 feet above mean sea level. The site is bounded to the south by a slope descending to Rancho Capistrano; to the north by an existing residential development; to the west by a natural slope that ascends to the prominent, generally north-south trending ridgeline near the boundary of the adjacent Colinas de Capistrano community; and to the east by the Mercedes Benz of Laguna Niguel facility. Site terrain is generally steep, with on-site paved roads ranging from 1% up to 15% slopes. In general, the rough-graded pads slope at approximately 1% toward the project's paved streets. Graded slopes upstream of the site to the west average a gradient of approximately 45%, while those downstream to the south-southeast average approximately 30% gradient.

The existing site condition consists of a single road, Avenida del Caballo, bisecting the project site from the northeast to the southwest and 35 rough-graded residential lots. The site has seven drainage areas identified as Areas A, B1, C1, D1, E1, F1, and G1, all of which drain southerly, while the southern portion of Area A drains east and north, toward Avenida del Caballo. Figure 3-13 depicts the existing drainage boundaries.

Area A is the largest drainage area, with approximately 20.7 acres of off-site and on-site terrain. Runoff from this area is at a volume of approximately 76.2 cubic feet per second (cfs) and drains into an existing developed area, Colinas de Capistrano community, to the north.

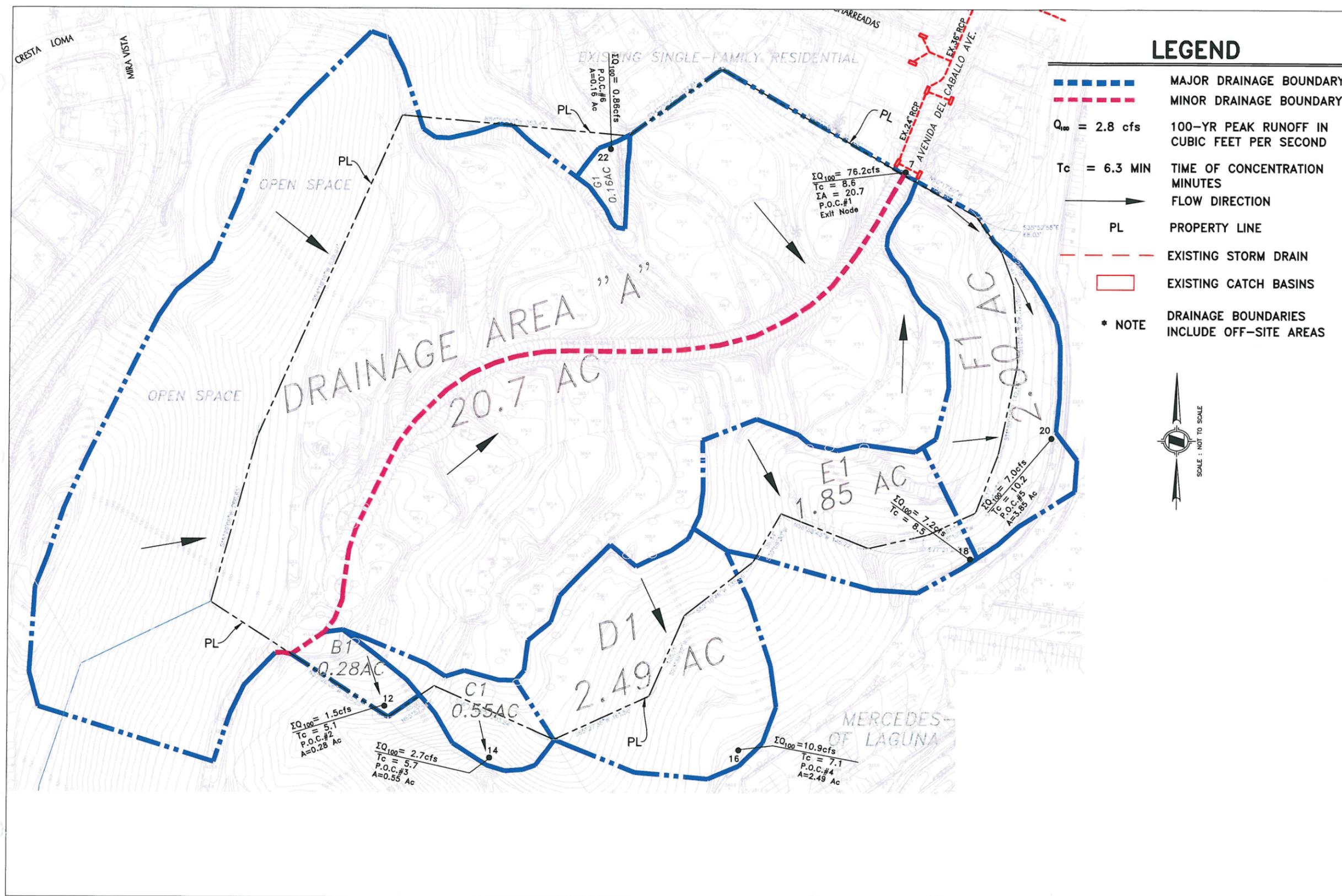
Portions of slopes in Area A, north of Avenida del Caballo (existing street), drain southeasterly before flowing into the street, which then carries flows to the northerly direction. Both the western and northern portions of the site in Area A and the abutting graded lots and streets south of Avenida del Caballo eventually drain northerly and are conveyed to a gutter that discharges into an existing off-site catch basin downstream in Avenida del Caballo. This flow is then conveyed northeasterly in an existing off-site 36-inch storm drain prior to discharging to Oso Creek Channel watershed.

Northerly portions of Areas A and G1 along the south side of the existing trail (Colinas Bluff Trail) sheet flow to the trail and would not be affected by the proposed project.

Runoff from the southern slopes (B1, C1, D1, E1, and F1) of the project site are conveyed as sheet flow and concentrated flow in a southerly/southeasterly downstream direction to an existing concrete channel. Runoff from the same southern slopes discharges into a grass swale and then into the Oso Creek Channel.

Surface Hydrology

The project is within the San Juan Creek Watershed Work Plan. The San Juan Creek Watershed covers 159.98 square miles and includes portions of Dana Point, Laguna Hills, Laguna Niguel, Mission Viejo, Rancho Santa Margarita, and San Juan Capistrano. Its main tributary, San Juan Creek, originates in the Santa Ana Mountains, in the eastern portion of Orange County (Orange County



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Figure 3-13
Drainage Area Map
SunPoint Residential Project

Public Works n.d.). Receiving waters in the proposed project area include Oso Creek (lower), Trabuco Creek, San Juan Creek, and ultimately the Pacific Ocean.

The project site is subject to the requirements of the South Orange County Hydromodification Management Plan and Municipal Separate Storm Sewer Systems (MS4) Permit. The water bodies nearest to the site are Arroyo Trabuco Creek, approximately 1 mile to the east, and Sulphur Creek, approximately 1.5 miles to the west. No creeks cross the site.

Flooding

The project site is not within a 100-year flood hazard area designated by the Federal Emergency Management Agency (FEMA). It is located within the FEMA-designated flood Zone X, which indicates areas of minimal flood hazard, outside the Special Flood Hazard Area and higher than the elevation of the 0.2% annual chance (or 500-year) flood.

The Carbon Canyon Dam and Prado Dam failure zones lie north of the project area (approximately 28 miles and 23 miles, respectively, from the project site). Failure of the Carbon Canyon Dam would appear to primarily affect areas north of SR-91 in the city of Anaheim. The Prado Dam failure zone is also north of the project area in the city of Anaheim along the banks of the Santa Ana River.

Groundwater Hydrology

The project site is in the San Juan Valley Groundwater Basin, which underlies the San Juan Valley and several tributary valleys in southern Orange County. San Juan Creek drains the San Juan Valley, and several other creeks drain valleys tributary to San Juan Creek. Average annual precipitation ranges from 11 to 15 inches. The primary water-bearing unit within the San Juan Valley Groundwater Basin is Quaternary alluvium, which ranges from a heterogeneous mixture of sand, silt, and gravel in the eastern portion of the basin, to coarse sand near the center, to fine-grained lagoonal sediments in the western portion of the basin. San Juan Valley Groundwater Basin total storage capacity has been estimated to be approximately 90,000 acre-feet. Basin management is conducted by the San Juan Basin Authority. The western part of the basin is impaired due to high total dissolved solids content and water coming from springs in Thermal Canyon (which are high in fluorine).

Water Quality

The City of Laguna Niguel and the project site lie within the jurisdictional boundaries of the San Diego Regional Water Quality Control Board (San Diego Water Board). The Water Quality Control Plan (Basin Plan) for the San Diego Region designates beneficial uses for all water body segments in its jurisdiction, and then sets criteria necessary to protect these uses. Consequently, the water quality objectives developed for particular water segments are based on the designated use and vary depending on such use. The San Diego Water Board has set numeric and narrative water quality objectives for several substances and parameters in numerous surface waters in the region. For those waters that do not have specific beneficial uses or water quality objectives, the tributary rule applies to streams.² Table 3-13 describes designated beneficial uses for water bodies within the project site watershed.

² The "tributary rule" refers to any streams not specifically listed in the plan that are deemed to have the same beneficial uses and water quality objectives of the listed stream, river, or lake to which they are a tributary.

Table 3-13. Designated Beneficial Uses for Surface Water Bodies in the Project Vicinity

Water Body	Jurisdiction	Designated Beneficial Uses
Oso Creek	San Diego Water Board	Agricultural Supply (AGR), Industrial Use (IND), Water contact recreation (REC1), Non-contact water recreation (REC2), Warm freshwater habitat (WARM), Cold freshwater habitat (COLD), Wildlife habitat (WILD)
Arroyo Trabuco Creek	San Diego Water Board	Agricultural Supply AGR, Industrial Use IND, Water contact recreation (REC1), Non-contact water recreation (REC2), Warm freshwater habitat (WARM), Cold freshwater habitat (COLD), Wildlife habitat (WILD)

Source: San Diego Water Board 2012

SWRCB identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with the federal CWA Section 303(d). Table 3-14 describes identified impairments for water bodies within the project site watershed, which are all under the jurisdiction of the San Diego Water Board.

Table 3-14. 303(d) Listed Impairments Uses for Surface Water Bodies in the Project Vicinity

Water Body	303(d) Listed Impairments
Oso Creek (Lower)	Metals (Selenium), Toxicity
Trabuco Creek	Pesticides (Diazinon), Nutrients (Phosphorus, Total N), Toxicity
San Juan Creek	Pathogens, Pesticides (DDE), Nutrients (Phosphorus, Total N), Metals (Selenium), Toxicity
San Juan Creek Mouth	Pathogens
Pacific Ocean Shoreline at San Juan Creek	Pathogens

Source: Appendix H

Regulatory Setting

Federal

Clean Water Act (33 USC 1251 et seq.)

The CWA is the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The CWA prohibits any discharge of pollutants into the nation's waters unless specifically authorized by a permit. The applicable sections of the CWA are further discussed below.

Section 102 requires the planning agency of each state to prepare a Basin Plan to set forth regulatory requirements for protection of surface water quality, which include designated beneficial uses for surface water bodies, as well as specified water quality objectives to protect those uses. Analysis of the degree to which discharges of runoff from the project may or may not adversely affect project receiving water beneficial uses and attainment by the receiving water indicates the degree to which the project may affect water quality of existing surface waters. Beneficial uses and

water quality objectives have been established by the Regional Water Boards for their respective jurisdictions.

Section 303(d) requires each state to provide a list of impaired surface waters that do not meet or are expected not to meet state water quality standards as defined by that section. It also requires each state to develop total maximum daily loads (TMDL) of pollutants for impaired water bodies. The TMDL must account for the pollution sources causing the water to be listed. Impaired waters with potential to be affected by the project are described in the *Water Quality* section above.

CWA Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) permit program, which is the primary federal program that regulates point-source and non-point-source discharges to WoUS. NPDES permits are issued by SWRCB and the nine geographically separated Regional Water Boards in California. There are both general and individual NPDES permits. General NPDES permits cover industrial, construction, and municipal stormwater discharges, and some point-source discharges for specific activities. Individual NPDES permits cover point-source discharges from wastewater facilities.

The NPDES permits that apply to the proposed project are the MS4 Permit and NPDES Construction General Permit.

MS4 Permits require that cities and counties develop and implement programs and measures to reduce the discharge of pollutants in stormwater discharges to the maximum extent possible, including management practices, control techniques, system design and engineering methods, and other measures as appropriate. As part of permit compliance, these permit holders have created stormwater management plans for their respective locations. These plans outline the requirements for municipal operations, industrial and commercial businesses, construction sites, and planning and land development. These requirements may include multiple measures to control pollutants in stormwater discharge. During implementation of specific projects under the program, project applicants will be required to follow the guidance contained in the stormwater management plans as defined by the permit holder in that location.

Construction activity resulting in a land disturbance of 1 acre or more, or less than 1 acre but part of a larger common plan of development or sale, must obtain the Construction General Permit. The Construction General Permit requires the development and implementation of a SWPPP. The SWPPP must list BMPs that the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment (State Water Resources Control Board 2015). The requirements of the SWPPP are based on the construction design specifications detailed in the final design plans of the proposed project and the hydrology and geology of the site expected to be encountered during construction. These final plans are reviewed and approved by the City prior to the issuance of grading permits. This allows the City to review the plans and require appropriate additional requirements under the SWPPP prior to grading and in compliance with the NPDES permit (as described above).

Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.)

The Porter-Cologne Water Quality Control Act requires the regulation of all pollutant discharges, including wastes in project runoff that could affect the quality of the state’s water. The act also provides for the development and periodic reviews of Basin Plans that designate beneficial uses of

California's major rivers and groundwater basins and establish water quality objectives for those waters. Beneficial uses and water quality objectives are specified for the project area in the Basin Plan for the San Diego Region and are regulated by the San Diego Water Board.

Local

Orange County Stormwater Program

Orange County developed a Stormwater Program, as required under their MS4 Permit. As an MS4 operator, Orange County must obtain and implement NPDES permits for the San Diego Water Board. The Orange County Stormwater Program is a cooperative effort between the County of Orange, Orange County Flood Control District, and all 34 Orange County cities.

San Diego Water Board – Storm Water

The San Diego region's Storm Water Management Unit's main focus is in implementing permitting, compliance, and other activities to reduce pollutants in municipal, construction, and industrial stormwater runoff. The Unit also provides important assistance in dispersing state grant funds to worthy projects that support activities for the reduction and prevention of stormwater pollution.

In general accordance with the MS4 Permit referenced above, the Model Water Quality Management Plan (WQMP) was developed by the County of Orange, the Orange County Flood Control District, and cities of Orange County (the Permittees) to aid the Permittees and development project proponents with addressing post-construction urban runoff and stormwater pollution from new development and significant redevelopment projects. The Model WQMP describes the process for developing a Project WQMP for individual new development and significant redevelopment projects. A Project WQMP is a plan for minimizing the adverse effects of urbanization on site hydrology, runoff flow rates, and pollutant loads. Hunsaker & Associates prepared the proposed project's *Conceptual Water Quality Management Plan* in April 2015 (Appendix H).

Impact Analysis

Would the project:

a. *Violate any water quality standards or waste discharge requirements?*

Less-than-Significant Impact With Mitigation Incorporated. The proposed project would not violate any water quality standards or waste discharge requirements. A discussion of construction and operation as they relate to water quality standards and discharge requirements is presented below.

The proposed project could result in an increase in surface water pollutants such as sediment, oil and grease, and miscellaneous wastes during construction activities. Water quality would be temporarily affected if disturbed sediments were discharged via existing stormwater collection systems. Increased turbidity resulting from construction-related sediment discharge can introduce compounds toxic to aquatic organisms, increase water temperature, and stimulate the growth of algae.

In general, the delivery, handling, and storage of construction materials and wastes, as well as use of construction equipment, could also introduce the risk of stormwater contamination if not properly handled and contained. Staging areas or building sites can be sources of pollution because of the use

and storage of equipment and materials during construction. Impacts associated with metals in stormwater include toxicity to aquatic organisms, such as bioaccumulation. Vegetation removal and pesticide use (including herbicides and fungicides) associated with site preparation work can result in erosion and surface water contamination from runoff. Pesticide impacts on water quality include toxicity to aquatic species and bioaccumulation in larger species. Construction impacts on water quality are potentially significant and could lead to exceedance of water quality objectives or criteria specified in the San Diego Water Board's Basin Plan.

However, mitigation measures are planned to address these types of concerns and will provide preventive measures that reduce the risk of having potential significant impacts. Safeguards are planned through SWPPP and BMP programs that are regularly monitored and enforced to reduce impacts to less-than-significant levels.

Construction of the proposed project would disturb more than 1 acre and, therefore, would be required to prepare and implement a SWPPP, in accordance with the Construction General Permit. The SWPPP would list BMPs that would be implemented to protect stormwater runoff and would include monitoring of BMP effectiveness. At a minimum, BMPs would include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with stormwater. The SWPPP would specify properly designed centralized storage areas that keep these materials out of the rain. If grading must be conducted during the rainy season, the primary BMPs selected would focus on erosion control (i.e., keeping sediment on the site).

Compliance with the MS4 Permit and Construction General Permit, as well as other applicable stormwater management requirements, would ensure that the project would have a less-than-significant impact on water quality standards during construction activities.

The proposed project includes construction of up to 71 small-lot, single-family residences on a 19.5-acre site. This increase in population, and associated increases in vehicle use, would result in potential discharge of associated pollutants. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff that could be transported to receiving waters. However, to address the project's stormwater pollutants of concern, the project plans a series of treatments that include the use of biofiltration BMPs to capture and treat runoff consistent with the San Diego Regional Water Quality Control Board requirements. Figure 3-14 depicts the location of the proposed treatment facilities.

Biofiltration BMPs are treatment methods designed to address the project's potential stormwater pollutants of concern. One type of biofiltration BMP consists of shallow landscaped depressions or proprietary planters to which runoff is directed that use woody and herbaceous plants to mimic pollutant removal mechanisms that operate in forested ecosystems. Studies have demonstrated that, if maintained, biofiltration systems exhibit high removal rates (greater than 90%) for pollutants such as nutrients, metals, bacteria, and total suspended solids. Another biofiltration BMP is a proprietary underground treatment system whereby flows pass through a variety of filtration media prior to discharge. One commonly used facility is called a Modular Wetland. These features would slow runoff velocity, which would reduce erosion potential, but would not include infiltration due to geotechnical stability constraints. Subdrains convey any infiltrated runoff to the storm drain system. Therefore, infiltration as a water quality BMP is not feasible.

Underground vaults are designed to minimize vector impacts that typically occur with standing water. The system is designed with interior slopes so the flow of water is constantly draining, preventing standing water.

Compliance with MS4 Permit requirements, the installation and maintenance of biofiltration BMPs, and compliance with other applicable stormwater management requirements would ensure that the project would have a less-than-significant impact on water quality standards during project operation.

Geotechnical remediation consists of dewatering the project site. The discharge of groundwater could potentially cause a significant water quality impact.

Hydroaugers were placed at the southeastern section of the site to drain groundwater from beneath the project site to improve geotechnical stability. The amount of water being removed varies based on seasonal rain storms. Flow from the hydroaugers has been monitored periodically since May 22, 2013. Since this time, flow in individual hydroaugers fluctuates with a peak flow of approximately 0.43 gallon per minute measured in HD-3. The maximum daily flow for all drains peaked initially at approximately 600 gallons per day. Over time, the collective flow from all drains has decreased to approximately 220 gallons per day.

Groundwater from a groundwater monitoring well was sampled on November 11, 2012 for the following types of analyses.

- Volatile organic compounds (VOC) using EPA Method 8260B
- Chloride, fluoride; nitrite (as NO₂) and nitrate (as NO₃) using EPA Method 300
- Priority pollutants (metals) using EPA Method 6010B
- Specific conductance (EC) and total dissolved solids (TDS) using ASTM Methods

No VOC or priority pollutant metals were detected over the laboratory reporting limits except for the following.

- Potassium at 79,000 micrograms per liter (µg/L)
- Magnesium at 110,000 µg/L
- Calcium at 180,000 µg/L

The concentrations of potassium, magnesium, and calcium are considered typical of local groundwater in the Capistrano Formation and reflect the mineral content of the marine clay. As indicated by the specific conductance and TDS concentrations (11.1 micromhos per centimeter and 8,200 milligrams per liter [mg/L], respectively), groundwater from this formation is considered brackish.

This water exceeds the secondary maximum contaminant level for drinking water in California for TDS, which is set at 1,000 mg/L. TDS comprise inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonates, chlorides, and sulfates) and some small amounts of organic matter that are dissolved in water. In California, secondary maximum contaminant levels are non-enforceable standards based on aesthetics rather than a health hazard. An elevated TDS concentration is not a health hazard but may cause the water to appear cloudy or colored, or to taste or smell bad.

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Figure 3-14
WQMP Site Plan
SunPoint Residential Project

On August 14, 2014, representative groundwater samples from the three active hydrauger drains were collected and submitted for the following types of analyses.

- VOC using EPA Method 8260B
- Total petroleum hydrocarbons by EPA Method 8105C
- Chloride and fluoride using EPA Method 300
- Priority pollutants (metals) using EPA Method 6010B

No VOC or petroleum hydrocarbons were detected in any of the samples submitted. For metals, only copper was detected above the laboratory reporting limit at concentrations ranging from 62 µg/L to 69 µg/L. The California public health goal for copper in drinking water is 300 µg/L.

No fluoride was detected above the laboratory reporting limits. Chloride was detected in all three samples submitted, at concentrations ranging from 1,050 mg/L to 1,150 mg/L. These chloride concentrations reflect the clayey marine origin of the Capistrano Formation.

The San Diego Regional Water Quality Control Board regulates discharge of groundwater into the storm drain system. The San Diego Regional Water Quality Control Board has established waste discharge requirements for the release of groundwater. If the Applicant chooses to release groundwater into the storm drain system, it would need to obtain a discharge permit and comply with the waste discharge requirements. No significant impacts would occur with implementation of **Mitigation Measure MM HYD-1**. The Applicant may also discharge groundwater flow into the municipal sewer system operated by MNWD. The Applicant has met with MNWD and is pursuing discharge authorization. No significant impacts would occur with implementation of **Mitigation Measure MM HYD-1**.

MM HYD-1: Prior to the issuance of building permits, the Applicant shall provide the City with either a groundwater discharge permit issued by the Regional Water Quality Control Board authorizing discharge of groundwater into the storm drain system, or authorization from the Moulton Niguel Water District to discharge groundwater into the sewer system.

As discussed in Section VI, *Geology and Soils*, Figure 3-12 graphically depicts the proposed connection from the hydraugers into the sewer system.

Capturing and treating groundwater through the regional wastewater treatment facility prior to discharge into the Pacific Ocean would comply with waste discharge requirements, and impacts would be less than significant.

- b. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted)?***

Less-than-Significant Impact. Implementation of the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level. Pervious surface area pre-project is 17.57 acres, or 90%, and post-project pervious surface area would be 12.3 acres, or 63%. However, based on information found in the WQMP, on-site soils consist primarily of Alo Clay, which is classified as a Hydrologic Soil Group “D” soil, characterized as having very slow infiltration rates when thoroughly wet. Therefore, in the current condition, the project site does not

substantially contribute to groundwater recharge due to poor infiltration rates. No substantial change would occur in the developed condition.

Furthermore, routine dewatering activities are an important component of the proposed project to attain geologic stability factors for safe residential development. Therefore, not only are the project site's soil conditions not conducive to groundwater infiltration, but the presence of groundwater could destabilize the site and, therefore, must be removed. However, based on well data, the groundwater present under the project site is not part of an underground aquifer that supplies drinking water. Therefore, dewatering the project site would not cause a significant impact on groundwater supplies. As such, the proposed project 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 in the groundwater table. Impacts would be less than significant.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?

Less-than-Significant Impact. Implementation of the project would alter the existing drainage pattern of the site; however, this alteration would not include the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on or off site. As described in IX.a. above, the site has seven drainage areas, all of which drain southerly (while the south drainage portion of Area A drains east and north) toward Avenida del Caballo. The northern portion of the site and the graded lots and streets south of Avenida del Caballo drain toward Avenida del Caballo, where they are then conveyed northeasterly. Runoff is then conveyed in an existing storm drain in Avenida del Caballo prior to discharging to Oso Creek. Runoff from the southern slopes of the project site (Areas B1 to F1) is conveyed as sheet flow and concentrated flow in a southerly/southeasterly downstream direction to an existing concrete channel. Runoff from the same southern slopes discharges southerly to Oso Creek.

After implementation of the proposed project, runoff from residential units would be conveyed as sheet flow, gutter flow, and area drain flow to the project's proposed main storm drain in Avenida del Caballo. Runoff would then be conveyed downstream and discharged as in pre-project conditions (via a 36-inch storm drain line and Oso Creek). Runoff from project streets and parking lots would be conveyed as gutter flow to catch basins prior to discharging to the main storm drain system.

The proposed biofiltration BMPs are intended to satisfy the project's requirements for Low Impact Development, which involves engineering design considerations to minimize impacts on the environment that encourage water conservation and stormwater treatment. These facilities would capture water runoff and provide a "first flush" to clean the water before it enters the storm drain system. Water quality flows (non-stormwater flows and the Design Capture Volume) from the project's on-site drainage areas would be conveyed to biofiltration BMPs for treatment. Examples of these "flows" are sprinkler runoff or car washing run-off (nonstormwater) and the first 0.85 inch of a storm event (Design Capture Volume).

To ensure that the project's discharge is controlled, landscaped slopes would be inspected for adequate vegetation cover, vegetation health, and signs of erosion. Dead or dying vegetation would be replaced as needed and signs of erosion and concentrated flow areas would be noted and repaired.

Existing conditions would not change significantly, as drainage flows would continue toward Avenida del Caballo as planned. Storm drains are all connected to the underground vault system prior to exiting the site on Avenida del Caballo. Some southerly hillside runoff in areas B1 to F1 would continue to sheet flow toward adjacent existing channels.

The proposed design for erosion control and “filtering” through biofiltration BMPs would reduce sedimentation within the stormwater drainage system. These project features would prevent substantial erosion and siltation on or off site. Therefore, although the proposed project would result in alteration of the existing drainage, it would not result in substantial erosion or siltation on or off site, and impacts would be less than significant.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?

Less-than-Significant Impact. Implementation of the proposed project would alter the existing drainage pattern of the site; however, this alteration would not include the alteration of the course of a stream or river, or increase the rate or amount of surface runoff in a manner that would result in flooding on or off site.

The drainage area for the project site has seven drainage areas, as discussed above, totaling approximately 28 acres. The size of the drainage area exceeds the size of the project site because off-site areas drain onto the property. In the proposed development condition, the boundary of Drainage A area would increase slightly and the boundaries of the remaining drainage areas would slightly decrease. The critical storm event analyzed is the 100-year storm. The following table provides a comparison of drainage area and stormflow, referred to as Q_{100} for the 100-year storm event, in both the existing and developed conditions.

Table 3-15. Change in Drainage Area (Acres)

Drainage Area	Existing Condition		Proposed Condition		Change in Area (ac)
	Area (ac)	Q_{100} (cfs)	Area (ac)	Q_{100} (cfs)	
A	20.70	76.20	22.94	83.80	2.24
B1	0.28	1.50	0.23	1.20	-0.05
C1	0.55	2.70	0.41	2.20	-0.14
D1	2.49	10.90	2.00	9.48	-0.49
E1	1.85	7.20	1.33	4.82	0.52
F1	2.00	7.00	1.00	3.57	-1.00
G1	0.16	0.86	0.12	0.65	-0.04
Total Area	28.00		28.00		0.00

Source: Appendix G.

ac = acres; cfs = cubic feet per second; Q_{100} = 100-year storm even

As shown in Table 3-15, during the 100-year event, all drainage areas except for Drainage Area A show a decrease in storm runoff. Drainage Area A is planned to increase in size by approximately 2.24 acres. To account for this increase in runoff, the proposed project design includes an underground detention basin. This facility is an underground vault with a storage capacity of 1.69 acre-feet of volume. Flows during storm events are captured in this storage vault and released

over time. As a result, the peak storm flow during the 100-year event would be reduced from 83.80 cfs to 75.8 cfs, which is less than the existing condition of 76.20 cfs. Therefore, all drainage areas would show a reduction in storm flows.

Furthermore, the proposed underground storage vault would capture smaller storm events, which complies with current hydromodification requirements consistent with the City's MS4 permit. In total, the vault would provide 0.68 acre-foot of detention, 0.52 acre-foot of hydromodification, and 0.75 acre-foot of water quality benefits. Therefore, the proposed project would not cause the rate or amount of surface runoff to result in flooding on or off site, and impacts would be less than significant.

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

Less-than-Significant Impact. As described in IX.d above, implementation of the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. For each of the seven drainage areas, the runoff during the 100-year storm event would be less in the developed condition than in the existing condition through the capture of storm flows in an underground vault with a storage capacity of 1.69 acre-feet of volume. Furthermore, the planned biofiltration BMPs would treat stormwater before discharge and prevent additional sources of polluted runoff from entering the stormwater drainage system. Therefore, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, and impacts would be less than significant.

f. Otherwise substantially degrade water quality?

Less-than-Significant Impact. Implementation of the proposed project would not otherwise substantially degrade water quality. As described in IX.a through IX.e above, the proposed project would result in less-than-significant short-term construction and long-term operational impacts on water quality. Construction impacts would be reduced through the implementation of BMPs during construction, and biofiltration BMPs would be incorporated as a project design feature. Therefore, implementation of the proposed project would be in compliance with existing regulations and would not otherwise substantially degrade water quality. Impacts would be less than significant.

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

No Impact. The project site is not within a FEMA-designated 100-year flood zone. Therefore, no impact would occur.

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

No Impact. The project site is not within a FEMA-designated 100-year flood zone, and the proposed project would be designed to minimize the potential for ponding or flooding on or off site. Therefore, no impact would occur.

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?

No Impact. The project site is not within a FEMA-designated 100-year flood zone, and is not downstream of a large dam. Therefore, the possibility of exposing people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam is very low. Consequently, no impact would occur.

j. Contribute to inundation by seiche, tsunami, or mudflow?

No Impact. The project site is not near a large inland water body, it is approximately 5 miles from the Pacific Ocean, and it is generally considered too far away to be subject to a tsunami. Additionally, the site is not within the vicinity of a large reservoir and thus is not subject to seiche. Furthermore, existing vegetation would be retained (where feasible) and areas to be disturbed by construction would be paved or landscaped with native and/or drought-tolerant plant species with a deep root system, making a potential mudflow on the project site unlikely. Therefore, the proposed project would not contribute to inundation by seiche, tsunami, or mudflow, and no impacts would occur.

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

Environmental Setting

The project site is currently devoid of buildings and contains 35 rough-graded residential lots with paved streets, curbs, gutters, manufactured slopes, and a rough-graded trail segment. As mentioned in Chapter 2, *Project Description*, the project site was originally recorded as a residential tract in the 1960s and experienced mass grading to establish streets, utility infrastructure, and building pads for future homes. However, geotechnical constraints were identified that required additional investigation and mitigation prior to buildout of the site. The project site is situated on an east-facing hillside and bound on the north by Country View Estates residential development, on the east by Mercedes Benz of Laguna Niguel, on the south by a slope descending to Rancho Capistrano and Saddleback Church, and on the west by open space.

City of Laguna Niguel General Plan

The proposed project site is designated in the LNGP Map as RD, which allows for one single-family dwelling on a legal lot. The surrounding land use designations include RD to the north, Community Commercial to the east, and two areas of Open Space, one to the south/southeast and the other to the north. The property directly west of the project site is located in the City of San Juan Capistrano and designated General Open Space. Bordering the site to the south in the City of San Juan Capistrano, the area is designated LU 9.6 PC, which is a Planned Community designation.

The proposed project is within the Colinas de Capistrano Community Plan Area under Community Profile Area 3 of the LNGP. The profile area is generally bounded by the City of San Juan Capistrano to the south, Crown Valley Parkway and Street of the Golden Lantern to the west, and the San Joaquin Hills Transportation Corridor (SR-73) to the north and east. The LNGP projects a buildout of 695 Residential Dwelling Units for Community Profile Area 3, Colinas de Capistrano. As of 2006, 660 units have been constructed, leaving 35 units remaining within the Community Profile area. The proposed project site is identified as a small portion of the RD area, which is undeveloped and projected at a maximum of 35 detached units.

At the time the LNGP was prepared, the City relied on recorded tract maps to determine density limits. Even though construction was not finished on the project site, the presence of a recorded

tract map was used to establish the density at 35 lots. This limit was not based on any analysis, such as an environmental review that would have determined a threshold density to avoid impacts, a land use compatibility analysis comparing densities to surrounding neighborhoods, or application of other planning principles. The limit of 35 lots was solely based on the policy of using recorded maps when available to determine density. Because the proposed project would exceed the current land use limits, a General Plan Amendment is necessary.

City of Laguna Niguel Municipal Code

Title 9 of the Laguna Niguel Municipal Code is titled Planning and Zoning, and functions as the LNZC. The LNZC was created to carry out the policies of the LNGP. It is the intent of the Zoning Code to promote health, safety, and the general welfare of the City and its citizens. The proposed project site is currently zoned RS-3, which provides the development and preservation of low- and medium-density neighborhoods with single-family residences on individual lots. The minimum lot size within the RS-3 district is 3,000 square feet. The project proposes a Zone Change from the current R-3 designation to RP District.

The purpose of the zone change is to accommodate the clustered design, which uses different development standards to cluster housing in certain portions of the site, allowing a majority of the site to remain open space. Section 9-1-31.4 of the LNZC defines the RP District, the purpose and intent of which is to provide for the development and preservation of medium-density planned unit developments with attached homes, detached homes, or a mixture of both. Setbacks and other development standards are to be tailored specifically to each project by means of a precise development plan (per Section 9-1-33.2), which would be approved with the proposed project and incorporated into the zoning code as an appendix.

Impact Analysis

Would the project:

a. Physically divide an established community?

No Impact. The proposed project is within the Colinas de Capistrano Community Profile Area of LNGP and is surrounded by compatible land uses including residential to the north and west, commercial uses to the east, and church/institutional and planned community uses to the south. Furthermore, the proposed project is consistent with the densities of surrounding neighborhoods. To the north, the existing density of Country View Estates is approximately 3.1 dwelling units per acre. To the west, the neighborhood of Loma Linda and Del Cerro has an existing density of approximately 3.5 dwelling units per acre. The proposed project would result in a density of approximately 3.6 dwelling units per acre. The consistency in residential density affirms the land use compatibility between the proposed project and existing residential uses. Figure 3-15 provides a graphic comparison of surrounding densities.

No changes to surrounding land uses and no barriers that would divide the community are proposed. The existing site is at the terminus of an existing neighborhood and has been approved for residential development since the 1960s. All proposed construction and operation activities would take place within the existing site boundaries. Therefore, implementation of the proposed project would not physically divide an established community, and impacts would not occur.

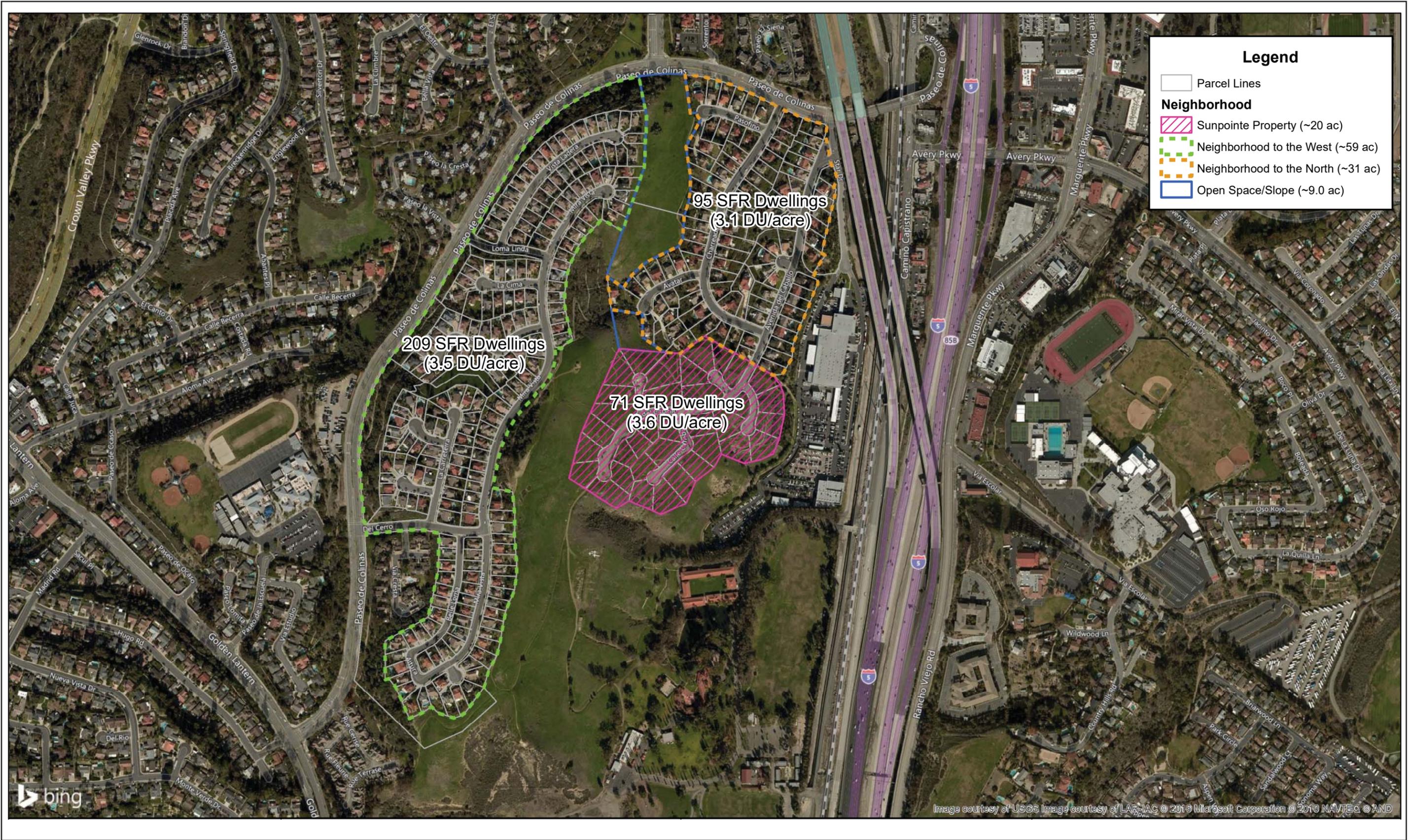
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-Significant Impact. As proposed, the proposed project is not consistent with the current dwelling unit cap included in Community Profile Area 3 of the LNGP. With approval of a General Plan Amendment to increase the allowable density from 35 units to 71 units in Community Profile Area 3 and the Colinas de Capistrano subarea, the proposed project would be consistent with the LNGP and impacts would be less than significant. As described in X.a. above, the proposed project would also be consistent with surrounding land uses and the densities of surrounding existing residential neighborhoods.

The applicant is also proposing a Zone Change from the current RS-3 designation to RP to facilitate the proposed clustering of detached single-family residences. The current RS-3 designation allows for 3,000-square-foot lots. Had the Applicant proposed a more conventional subdivision with minimum 3,000-square-foot lots, it is likely the same or greater number of dwelling units could have been achieved without the need for a Zone Change. The purpose of the Zone Change is to accommodate specific development standards that allow for the proposed cluster motor-court design. Therefore, the Zone Change is a request of the Applicant and not required to develop the property at the density proposed. However, as proposed, the Applicant is requesting a minor deviation from adopted development standards that would constitute a conflict with existing plans, unless otherwise approved. The requested deviations are as follows.

- **Alternative Parking Plan:** The proposed project would provide 261 parking spaces, including 142 garage spaces, 40 parking stalls, and 79 street parking spaces, at a ratio of 3.7 spaces per unit. The proposed project exceeds the 249 parking spaces required by the LNZN at a ratio of 3.5 spaces per unit. However, an Alternative Parking Plan is being requested to deviate from the baseline standard pertaining to the distance of guest parking from residences. The request is necessary to meet the project objectives while addressing the unique site challenges, such as clustering the units, and providing an “autocourt” design. The requested alternate standards would allow for:
 1. Some guest parking to be located in excess of 100 feet from the unit served.

Furthermore, on-street parking would be permitted to satisfy the requirement of one additional parking space per unit (two garage spaces per unit also provided).
- **Alternative Height Standard:** According to Section 9-1-33.4 of the LNZN, height limits are measured from the lower of existing grade or finished grade. Due to the proposed grade changes for the site to accommodate geotechnical remediation, some of the proposed building heights would exceed the City’s baseline height standard of 35 feet from existing grade. It should be noted that the structures themselves would not exceed 35 feet from finished grade. Because this section of the LNZN does not account for topographic changes to a project site, a minor adjustment is required, which provides for the review of the proposed topographic changes through the Site Development Permit review.
- **Retaining walls in excess of 12 feet:** In order to accomplish the geotechnical remediation and corresponding change in topography to create terraced building pads, the Applicant proposes the use of a gravity retaining wall system, such as an MSE wall, within the interior of the project



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Figure 3-15
Surrounding Densities
SunPoint Residential Project

site. MSE walls are designed with integrated planting pockets that can support vegetation growth to screen the visibility of the wall.

With approval of an SDP and Minor Adjustment, the conflicts with current development standards would be less than significant.

Furthermore, the LNGP contains goals and policies intended to promote land use compatibility. Table 3-16 provides a detailed analysis of the proposed project’s consistency with the goals and policies of the LNGP. Based on the consistency analysis provided in Table 3-16 below and approval of the General Plan Amendment, Zone Change, SDP, and Minor Adjustment, the proposed project would be consistent with all applicable land use plans. Therefore, impacts would be less than significant.

Table 3-16. City of Laguna Niguel General Plan Consistency Analysis

Policy	Consistency Analysis
General Plan Land Use Element	
Goal 1.0: A well-balanced mixture of land uses that meet the residential, commercial, open space and public service needs of residents.	Consistent. The proposed project includes the construction of up to 71 small-lot, single-family residences. Additionally, the proposed project would maintain existing adjacent open space and recreational trails and linkages to the street system. These dwellings are expected to help the City meet residential needs of the Laguna Niguel residents.
Goal 3.0: Compatible relationships between land uses in the community.	Consistent. The proposed project would result in the new development of up to 71 small-lot, single-family residences on a site currently zoned RD. The project site is bound on the north by the Country View Estates residential development, on the east by Mercedes Benz of Laguna Niguel, on the south by a slope descending to Rancho Capistrano and Saddleback Church, and on the west by open space. The site has been previously graded to establish streets, utility infrastructure, and building pads for future homes. The proposed project would not substantially degrade the existing visual character or quality of the site or surrounding areas. The existing vacant visual character of the site would become similar to already established land uses in the area and enhance the visual quality. Additionally, with mitigation, the proposed project would not substantially increase noise in the project vicinity that could propagate onto surrounding properties.
Policy 3.3: Reduce land use conflicts between residential and nonresidential uses.	Consistent. The LNGP assigns specific land uses to each property. The project site is bordered by residential, community commercial, and open space uses. The Site Plan would connect the development with existing nearby land uses through street connectivity and maintenance of open space and regional trails. Furthermore, the proposed density of 3.6 du/ac is consistent with existing neighboring residential communities that have densities of 3.1 du/ac and 3.5 du/ac.
Policy 3.4: Ensure that residential densities are compatible with the surrounding land uses and buildings are in scale with the neighborhood character.	Consistent. As described above, the proposed density of 3.6 du/ac is consistent with existing neighboring residential communities that have densities of 3.1 du/ac and 3.5 du/ac. The project proposes residential uses that would be compatible with surrounding residential, community commercial, and open space uses. The use of an alternate development standard for building height as part of the SDP would result in a project design superior to that under the City’s baseline development standards and would maintain compatible scale with the neighborhood character.

Policy	Consistency Analysis
Goal 4.0: Urban design that provides community gathering areas and other pedestrian spaces.	Consistent. The proposed SDP includes two parks. The larger would include orange groves, built-in BBQs and sinks, seating areas, fireplaces, seat walls, dining pavilion, shade trellis, Bocce Ball court, and landscaping. A second park would be a pocket park in the center of the development and would include a tot lot, shade trellis and tables, seat walls, and landscaped areas. Furthermore, the project would complete a missing multi-use link in the regional trail system.
Policy 4.1: Emphasize attractive and functional urban design in new development.	Consistent. See response to Goal 4.0 above. The proposed project would be consistent in developing attractive and functional urban design.
Policy 4.4: Provide, where feasible, pedestrian walkways and linkages between residential, commercial, office, open space/recreation facilities, and other public places.	Consistent. The project includes an irrevocable offer of dedication to the City of a rough-graded multi-use trail segment along the northern portion of the property. The trail segment is a key missing link in the local Colinas Bluff, a portion of the larger regional trail system.
Policy 6.1: Provide for the development of pedestrian gathering areas to promote social interaction.	Consistent. See responses to Goal 4.0 and Policy 4.4 above. The project includes two park improvements as well as the dedication of a public trail, which would provide opportunities to promote social interaction.
General Plan Open Space, Parks, and Conservation Element	
Goal 1: Well-maintained public and private open space.	Consistent. See response to Goal 4.0 above.
Policy 1.1: Preserve and protect the scenic and visual quality of areas designated for Open Space areas as a resource of public importance.	Consistent. See response to Land Use Element Goal 3.0 above. The project site is designated RD by the LNGP, which allows for one single-family dwelling on a legal lot. The property directly west of the project site is in the City of San Juan Capistrano and designated General Open Space. The proposed project would not develop this open space and would not substantially degrade the existing visual character or quality of the site or surrounding areas. The existing vacant visual character of the site would become similar to already established land uses in the area and enhance the visual quality.
Policy 1.2: When siting a proposed development project, locate the project in areas containing less sensitive landforms and preserve the most sensitive landforms and natural resources of the project site as open space.	Consistent. The site has been previously graded to establish streets, utility infrastructure, and building pads for future homes. Therefore, the project would not affect sensitive landforms and natural resources.
Goal 2: A system of public and private parks and recreation facilities achieved in cooperation with private community associations.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.
Policy 2.1: Provide park and recreational facilities that meet the needs of senior citizens, young adults, children, disabled individuals and families.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.

Policy	Consistency Analysis
Policy 2.2: Plan for new high quality recreation facilities and programs.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.
Policy 2.3: Facilitate cooperative use of recreational facilities and programs.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above. Buildout of the multi-use trail along the northern portion of the property would provide opportunities for cooperative use of the local Colinas Bluff trails.
Policy 2.4: Continue effective park and recreation area maintenance programs.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above. In addition, the project would complete a missing multi-use link in the regional trail system, which includes maintenance of open space and regional trails.
Policy 2.5: Ensure a flexible park master planning process that is responsive to community input.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.
Goal 3: A trail system that meets the bicycling, hiking and equestrian needs of residents.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.
Policy 3.1: Implement the Bikeway, and Hiking and Equestrian Plans.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.
Policy 3.2: Identify areas where trails can be located off-street and separated from vehicular traffic wherever possible. Class I bike trails shall not be located on or in conjunction with sidewalks intended for pedestrian use.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.
Policy 3.3: Expand existing regional trail facilities where attractive opportunities exist or can be created.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.
Policy 3.4: Plan bicycle routes to facilitate access to open space areas and recreational facilities, as well as other uses such as schools, neighborhoods and commercial centers.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above.
Policy 3.5: Plan for the completion of the Aliso Creek Forest to the Sea Trail within Laguna Niguel.	Consistent. See responses to Land Use Element Goal 4.0 and Policy 4.4 above. Buildout of the multi-use trail along the northern portion of the property would complete a missing link in the larger regional trail system.

Policy	Consistency Analysis
Goal 5: Conservation of natural resource areas of community and regional significance.	Consistent. The site has been previously graded to establish streets, utility infrastructure, and building pads for future homes. Furthermore, the project site is surrounded by compatible land uses including residential to the north and west, commercial uses to the east, and church/institutional and planned community uses to the south. The property directly west of the project site is in the City of San Juan Capistrano and designated General Open Space. The proposed project would not develop this open space, and would not substantially degrade natural resource areas of community and regional significance.
Policy 5.1: Conserve sensitive species and plant communities and wildlife habitats to the maximum extent feasible through open space dedication and easements, creative site design and other workable mitigation actions.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Goal 5 above. In addition, as discussed in Section IV, <i>Biological Resources</i> , of the 69 special-status plant species reported as occurring in the vicinity of the project site, all are deemed as having a less than reasonable potential of occurrence on the site; of the 59 special-status wildlife species, 56 are deemed as having a less than reasonable potential of occurrence. The three remaining wildlife species were determined to have an extremely low likelihood to occur on site because of the site's small size, sparse cover, isolated location, and surrounding disturbed conditions, and through negative survey results for the coastal California gnatcatcher. However, because birds protected under the MBTA and FGC have the potential to nest in and around the study area, Mitigation Measure MM BIO-1 would be implemented to ensure compliance with the MBTA and FGC and thus reduce the potential impacts to a less-than-significant level.
Policy 5.2: Recognize Aliso Creek, Sulphur Creek, and Salt Creek as important open space resources and cooperate where feasible to enhance their conservation value.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Goal 5 above. Additionally, as discussed in Section IX, <i>Hydrology and Water Quality</i> , Sulphur Creek is approximately 1.5 mile to the west of the project just west of Crown Valley Parkway. It is not identified as one of the receiving waters for the proposed project; nonetheless, the proposed project would minimize impacts on water quality and implement Mitigation Measure MM HYD-1 to ensure appropriate discharge permits are obtained prior to release of groundwater into the storm drain system or municipal sewer system.
Policy 5.3: Review the Plant Communities Map for all new development proposals.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Policy 5.1 above. A complete list of all plant and wildlife species observed during the field survey is included in Appendix B.
Goal 6: Carefully review sensitive hillside areas within the community.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Policy 1.2 above.
Policy 6.1: Provide for the preservation of sensitive hillside and canyon areas in accordance with the City's Hillside Protection Ordinance.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Policy 1.2 above.
Policy 6.2: Consider significant natural features, including sensitive hillsides and ridgelines as part of the development review process.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Policy 1.2 above.

Policy	Consistency Analysis
Goal 7. Recognize significant cultural sites or features within the community.	Consistent. A review of the results of the cultural resources record search and studies conducted in the area showed no resources designated as local, state, or federal historic properties within the proposed project area. However, the proposed project may require grading in native soil to accomplish its proposed geotechnical remediation and could result in a potential to affect archaeological resources. In addition, the project area sits in the late Miocene Capistrano Formation deposits, within which significant vertebrate fossil material may be encountered during excavations. Any fossils present could be damaged or destroyed as a result of earthwork during project construction and a potentially significant impact would occur. Implementation of Mitigation Measures MM CUL-1 and MM CUL-2 would require the presence of qualified archaeological and paleontological monitors to reduce potential impacts to a less-than-significant level. Therefore, with implementation of Mitigation Measures MM CUL-1 and MM CUL-2, the proposed project would be consistent with this goal.
Policy 7.1 Review the technical data on sensitive cultural resources for all new development proposals.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Goal 7 above.
Policy 7.2: Require mitigation of impacts to significant areas of archaeological and paleontological resources.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Goal 7 above.
Policy 7.3: Preserve uncovered resources in their natural state, as much as feasible to assure their preservation and availability for later study. Require that uncovered resources are documented and retained in an appropriate museum or institution.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Goal 7 above.
Goal 10. Effective utilization and Management of Water Resources.	Consistent. The proposed project would comply with the requirements of the CalGreen building code and water-saving restrictions, including drought-tolerant landscaping. In addition, the proposed project would provide an extension of the reclaimed water line from along Avenida del Caballo to the project site, which would be utilized for landscape irrigation of common areas and parks. Reliance on reclaimed water for landscaping would reduce the demand for potable water.
Policy 10.1 Require appropriate water conservation and mitigation measures on all development projects.	Consistent. See response to General Plan Open Space, Parks, and Conservation Element Goal 10 above.
Policy 10.2 Future land development and redevelopment must adhere to the standards set forth in the City of Laguna Niguel Local Implementation Plan for the	Consistent. Compliance with MS4 Permit and Construction General Permit requirements, the installation and maintenance of biofiltration BMPs, and compliance with other applicable stormwater management requirements would ensure that the proposed project would have a less-than-significant impact on water quality standards during project operation.

Policy	Consistency Analysis
<p>National Pollution Discharge Elimination System Storm Water Program to ensure that new development incorporates measures, to the extent practicable, that reduce the quantity of storm flow and discharge of pollutants in urban runoff to protect the water quality and biological habitats of downstream receiving waters.</p>	<p>Additionally, as described in Section IX, <i>Hydrology and Water Quality</i>, although storm runoff would increase slightly for Drainage Area A, it would decrease for the other six drainage areas on the project site. This is due to an increase in the size of Drainage Area A as a result of off-site areas draining onto the property. To account for this increase in runoff, the proposed project design includes an underground detention basin. This facility is an underground vault with a storage capacity of 1.69 acre-feet of volume. Flows during storm events would be captured in this storage vault and released over time. As a result, the peak storm flow during the 100-year event would be reduced. Furthermore, the proposed underground storage vault would capture smaller storm events, which complies with current hydromodification requirements consistent with the City’s MS4 permit. Therefore, the proposed project would result in less-than-significant impacts related to storm flows and runoff and would be consistent with this policy.</p>
<p>General Plan Public Facilities</p>	
<p>Policy 4.2: Require all buildings located within the City to adhere to fire safety codes.</p>	<p>Consistent. The project would adhere to the CAL FIRE Fire Prevention Program and would be required to meet all access, water, and fire protection systems per the CBC and Fire Code as well as other City Municipal Codes. Furthermore, OCFA would require a Secured Fire Protection Agreement prior to approval of the project to specify the pro-rata fair share funding of capital improvements necessary to establish adequate fire protection facilities, equipment, and personnel. Therefore, the proposed project would result in a less-than-significant impact related to fire safety and would be consistent with this policy.</p>
<p>Policy 8.1 Encourage development that minimizes net energy use and consumption of natural resources.</p>	<p>Consistent. The project would comply with the energy conservation measures contained in Title 24, which would reduce the amount of energy needed for operation of the proposed project. The proposed project would also incorporate the following energy-efficient features that would minimize energy consumption.</p> <ul style="list-style-type: none"> • Installation of drought-tolerant plant material from approved material lists of the City, MNWD, and OCFA • Installation of a reclaimed irrigation system for common area slopes • Relocation and installation of new MNWD water facilities including booster pumps and pressure reducer valves that would benefit off-site facility improvements • Provision of recycle containers as a part of the weekly trash pickup • Provision of energy-efficient lighting, plumbing, HVAC, appliances, windows, doors, and insulation

Policy	Consistency Analysis
General Plan Noise	
Goal 4. The control of noise from significant noise generators in the community.	<p>Consistent. The project itself is a residential development that is not anticipated to generate significant noise levels that would propagate onto surrounding properties. However, stationary noise sources affecting the project site include the car wash and auto body repair shop at Mercedes Benz of Laguna Niguel. The proposed project site could also be potentially affected by traffic noise from the nearby I-5 and SR-73 freeways.</p> <p>Noise impacts at proposed on-site noise-sensitive receivers would be minimized with implementation of Mitigation Measure MM NOI-2, which calls for the construction of noise barriers around affected noise-sensitive locations, with actual barrier heights and locations to be determined by a detailed noise study based on final site, grading, and architectural plans for the project. Furthermore, interior traffic noise impacts would be minimized with implementation of Mitigation Measure MM NOI-3, which requires HVAC systems at all residential units and a detailed noise assessment (based on final site, grading, and architectural plans) to determine specific building design features required for compliance with the City's interior standard of 45 dB CNEL. Therefore, with mitigation, on-site impacts from noise generators in the community would be minimized and consistent with this goal.</p>
Policy 4.1 Regulate noise from construction activities.	<p>Consistent. Implementation of Mitigation Measure MM NOI-1 would limit noise-generating construction activity to the permitted daytime hours and implement standard noise-reduction methods to minimize potential annoyance at nearby noise-sensitive receptors.</p>
Goal 5. The consideration of noise issues in the planning process.	<p>Consistent. See responses to General Plan Noise Goal 4 and Policy 4.1 above.</p>
Policy 5.1 Evaluate potential noise conflicts for individual sites and projects.	<p>Consistent. See responses to General Plan Noise Goal 4 and Policy 4.1 above.</p>
General Plan Seismic and Public Safety	
Goal 1: A reduction of impacts from natural hazards that may affect the City of Laguna Niguel.	<p>Consistent. The project would adhere to applicable ordinances, goals, and policies of the current CBC (CCR Title 24); recommendations contained in the <i>Feasibility Investigation and follow-up Response to the City of Laguna Niguel</i> (Appendix D); and requirements of the LNGP, which would reduce anticipated impacts related to the proximity of earthquake faults by requiring the project to be built to withstand seismic ground shaking. Mitigation Measure MM GEO-1 is required to ensure that the recommendations contained in the project's <i>Feasibility Investigation and Response Report</i> are implemented; Mitigation Measure MM GEO-2 requires a Long-Term Groundwater Maintenance and Monitoring Plan and is integral to achieving the code-required stability for safe residential construction and long-term maintenance and monitoring of the wells. Therefore, with mitigation, impacts would be less than significant.</p>
Policy 1.1: Mitigate potential adverse impacts of geologic and seismic hazards.	<p>Consistent. See response to General Plan Seismic and Public Safety Goal 1 above.</p>

Policy	Consistency Analysis
Policy 1.3: Develop plans and programs to mitigate the effects of natural hazards.	Consistent. See response to General Plan Seismic and Public Safety Goal 1 above.
Goal 2: Protection of the public and sensitive environmental resources from exposure to hazardous materials and waste	Consistent. Implementation of the proposed project is not expected to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Although development of the proposed project would involve handling of hazardous materials typical of a construction project, it is expected that construction of the proposed project would be conducted in compliance with federal, state, and local regulations. Additionally, any potential construction-related hazardous releases or emissions would be from commonly used materials such as fossil fuels, solvents, and paints that would not be considered acutely hazardous materials. Any spills would be localized and immediately contained and cleaned.
Policy 2.1: Reduce risks of exposure to hazardous materials and waste through careful land use and hazardous materials management planning.	Consistent. See response to General Plan Seismic and Public Safety Goal 2 above.
Policy 2.2: Reduce risk of exposure by improving the safety of hazardous materials/waste transportation.	Consistent. See response to General Plan Seismic and Public Safety Goal 2 above.
Goal 3: A safe and secure community free from the threat of personal injury and loss of property.	Consistent. The proposed project would represent an approximate population increase of less than 1%. Therefore, the proposed project is not expected to result in an additional strain on police and fire protection services such that new or expanded facilities would be required. Public services to ensure the safety of the community would not be significantly affected.
Policy 3.1: Provide fire protection to ensure the public's health and safety.	Consistent. See response to General Plan Seismic and Public Safety Goal 3 above and response to Public Facilities Policy 4.2 above.
Policy 3.2: Reduce the risk of wildland fire through fuel modification programs.	Consistent. The Applicant has met with OCFA and prepared a fuel modification plan that incorporates both vegetation management and alternate means and methods. That fuel modification plan was approved by OCFA in June 2015 and is included in Appendix F. The alternate means and methods incorporated into the plan include a radiant heat zone and ember intrusion zone depending on location of the structure. Therefore, implementation of the fuel modification plan as part of project construction would reduce the risk of impacts from wildfire to less-than-significant levels.

Policy	Consistency Analysis
General Plan Housing Plan	
Policy 1.1: Ensure that housing is safe and sanitary with adequate public services to accommodate the needs of City residents.	Consistent. See responses to General Plan Seismic and Public Safety Goal 3 and General Plan Public Facilities Policy 4.2 above. Additionally, as discussed in Section XVII, <i>Utilities and Service Systems</i> , the project would be accommodated by the three existing landfills in Orange County. Furthermore, the proposed project would not exceed wastewater treatment requirements or require the construction of new wastewater treatment facilities.
<p>BMP = best management practice; CAL FIRE = California Department of Forestry and Fire Protection; CNEL = Community Equivalent Noise Level; dB = decibel; du/ac = dwelling units per acre; FGC = California Fish and Game Code; HVAC = heating, ventilating, and air conditioning; I = Interstate; LNGP = City of Laguna Niguel General Plan; MBTA = Migratory Bird Treaty Act; MNWD = Moulton Niguel Water District; MS4 = Municipal Separate Storm Sewer System; OCFA = Orange County Fire Authority; RD = Residential Detached; SDP = Site Development Permit; SR = State Route</p>	

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The site is within the boundaries of the Central and Coastal Subregion of the NCCP/HCP; however, the site is not within or adjacent to lands designated as “reserve” within the NCCP/HCP. The nearest designated NCCP/HCP reserve lands are approximately 0.25 mile south of the site. The City is not a participating entity and is therefore not subject to the established policies of the NCCP/HCP and does not receive regulatory coverage under the NCCP/HCP. Therefore, the proposed project would not result in an adverse impact on the efficacy of the NCCP/HCP.

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

Environmental Setting

The project site encompasses 19.5 acres of hillside property that has remained in a subdivided and partially developed state since the 1960s. The project site straddles two Mineral Resource Zones (MRZs) mapped by the California Department of Conservation (California Department of Conservation 1995). These include MRZ-1 and MRZ-3. MRZ-1 identifies areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. MRZ-3 identifies areas containing mineral deposits, the significance of which cannot be evaluated from available data. The site currently has a General Plan designation of RD and is zoned Single-Family District. The land use and zoning designations allow for development of low- and medium-density neighborhoods with single-family residences on individual lots. The entire City of Laguna Niguel is also mapped within MRZ-1 and MRZ-3, and there are no areas in the City designated by the LNGP or Zoning Code for mineral resources or mineral resource activities.

Impact Analysis

Would the project:

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

No Impact. The project site is not within an area that contains known valuable mineral resources or where mineral resource extraction is currently occurring. Furthermore, during extensive geologic subsurface exploration across the entire project site, no mineral resources were observed. Therefore, the proposed project would not result in the loss of availability of a known mineral resource, and no impacts would occur.

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

No Impact. The project site is designated RD per the LNGP Land Use Element and is zoned Single-Family District for single-family residential uses. The site has not been identified as containing locally important mineral resources. As such, the proposed project would not result in the loss of availability of a locally important mineral resource recovery site, and no impacts would occur.

XII. Noise	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Existing Conditions

The existing noise-sensitive receivers in the vicinity of the proposed project include a single-family residential community directly to the north of the project site; single-family residences approximately 300 feet to the west of the project site along Mira Vista; and Saddleback Church Rancho Capistrano, approximately 400 feet to the south of the project site. Other land uses in the vicinity include vacant land to the south and the Mercedes Benz of Laguna Niguel car dealership to the east.

Traffic on the nearby I-5 and SR-73 freeways, approximately 650 to 1,000 feet to the east, respectively, is the primary sources of noise affecting the project site. Sporadic noise is also generated by operations at the adjacent Mercedes Benz of Laguna Niguel (primarily car wash and auto body repair shop activities) and a freight and passenger railroad approximately 600 feet east of the project site.

In order to document existing on-site noise levels, two short-term (ST) measurements and two long-term (LT) measurements were obtained within the project site (see Figure 3-16) between August 11 and August 13, 2015. These locations were selected to document the existing noise levels at representative locations across the project site and to determine changes in noise levels throughout

a typical day. Two additional noise measurements were conducted adjacent to single-family residences north and west of the project site in order to document ambient noise levels at off-site noise-sensitive locations. Each short-term measurement was conducted over a period of approximately 15 to 20 minutes. Long-term measurements were conducted over the period of 48 hours. Noise measurements indicate that the general ambient noise level near off-site locations (ST-3 and ST-4) is approximately 56 A-weighted decibels (dBA) equivalent noise level (L_{eq}). Measured on-site noise levels range from approximately 56 to 68 dBA L_{eq} , and 66 to 71 decibels (dB) community noise equivalent level (CNEL). Additional details and a summary of the measurement results are provided in Table 3-17. Field photos and field noise survey sheets are included in Appendix I to this document.

Long-term on-site noise levels (CNEL) include the combined contributions of all noise sources including traffic, railroad, and activities at the neighboring car dealership. On-site observations and post-measurement analysis of the data indicate that the overall CNEL is dominated by traffic noise from I-5 and SR-73.



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Figure 3-16
On-site and Off-site Short-Term and Long-Term Measurement Locations
SunPointe Residential Project

Table 3-17. Existing Noise Levels in Study Area

Location Number, Description (date, time)	Measured Noise Levels, dBA								
	CNEL	L _{eq} ^a	L _{max}	L _{min}	L ₉₀	L ₅₀	L ₂₅	L _{8.33}	L _{1.67}
ST-1 (On site): East of existing Remolina Lejos Road; at eastern edge of proposed Lot 54 (08/11/2015, 2:00 p.m.–2:20 p.m.)	66.0 ^b	61.5	65.0	57.2	58.8	61.4	62.3	63.2	64.3
ST-2 (On site): East of existing Calle de Cambio Road; near the eastern edge of proposed Lot 12 (08/13/2015, 10:55 a.m.–11:15 a.m.)	69.7 ^b	66.0	75.4	63.6	64.5	65.4	66.0	66.5	71.5
ST-3 (Off site): Approximately 30 feet east of residence at 25834 Avatar (08/13/2015, 11:46 a.m.–12:01 p.m.)	N/A	55.7	65.5	51.4	53.2	55.1	56.5	57.6	59.7
ST-4 (Off site): Approximately 90 feet east of residence at 28792 Mira Vista (08/13/2015, 12:57 p.m.–1:13 p.m.)	N/A	55.6	60.4	51.6	53.7	55.3	56.3	57.2	58.6
LT-1 (On site): East of existing Hombre de Guerra Road; near eastern edge of the proposed Lot 1 residence (08/11/2015, 11:00 a.m.–08/13/2015, 11:00 a.m.)	Range: 70.8–71.2	Daytime: 65.4–68.3 Evening: 64.9–67.3 Nighttime: 58.5–68.2	Daytime: 67.1–93.2 Evening: 65.8–91.0 Nighttime: 61.2–89.3	Daytime: 60.7–67.2 Evening: 59.0–64.3 Nighttime: 48.2–66.6	N/A	N/A	N/A	N/A	N/A
LT-2 (On site): East of existing Avenida del Caballo; near northeastern edge of the proposed Lot 34 residence (08/11/2015, 10:19 a.m.–08/13/2015, 12:29 p.m.)	Range: 66.2–66.8	Daytime: 57.0–64.1 Evening: 57.2–61.9 Nighttime: 55.7–63.9	Daytime: 58.6–86.5 Evening: 58.4–84.8 Nighttime: 56.9–80.5	Daytime: 52.5–63.8 Evening: 53.1–60.6 Nighttime: 48.7–63.5	N/A	N/A	N/A	N/A	N/A

^a Daytime indicates the range of hourly noise levels measured between 7 a.m. and 7 p.m. Evening indicates the range of hourly noise levels measured between 7 p.m. and 10 p.m. Nighttime indicates the range of hourly noise levels measured between 10 p.m. and 7 a.m.

^b CNEL values for on-site short-term measurements were derived from measured L_{eq} values using 24-hour data collected from long-term measurements

Notes: ST = short-term; LT = long-term; dBA = A-weighted sound level, the sound pressure level in decibels as measured using the A weighting filter network, which de-emphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear; L_{eq} = equivalent sound level, the average of the sound energy occurring over the measurement period; L_{max} = maximum sound level; L_{min} = minimum sound level; L_{xx} = percentile-exceeded sound level, the sound level exceeded for a given percentage of a specified period (e.g., L₂₅ is the sound level exceeded 25% of the time, and L₅₀ is the sound level exceeded 50% of the time)

Regulatory Setting

State

The State of California does not provide any specific noise standards that would apply to the project.

California Department of Transportation

Caltrans provides widely referenced vibration guidelines in its publication *Transportation and Construction Vibration Guidance Manual* (Caltrans 2013a). While these guidelines do not represent strict standards that apply to the project, they are useful in assessing groundborne vibration levels generated by project construction, particularly because the City of Laguna Niguel does not provide any quantitative vibration standards. The manual defines two different types of potential vibration impact: (1) building damage potential and (2) annoyance potential, as summarized in Tables 3-18 and 3-19, below.

Table 3-18. Caltrans Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (inch per second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = peak particle velocity, the maximum instantaneous positive or negative peak amplitude of the vibration velocity, measured in inches per second.

Table 3-19. Caltrans Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

Source: Caltrans 2013a.
PPV = peak particle velocity

Local

City of Laguna Niguel Municipal Code

Section 6.6 of the LNGP provides the City's noise ordinance. The noise ordinance is intended to protect sensitive land uses from stationary (i.e., non-transportation) noise sources such as commercial and industrial activities, music, and mechanical equipment. Sections 6.6.5 and 6.6.6 of the noise ordinance set limits on the level and duration of noise that may affect the exterior and interior areas of residential properties, as summarized in Table 3-20. As shown in the table, the ordinance provides stricter noise limits at nighttime to reflect that people are typically more sensitive to noise during these hours.

Table 3-20. City of Laguna Niguel Noise Ordinance Standards at Residential Properties

Location	Time Period	Noise Level (dBA) That May Not Be Exceeded For More Than...				
		30 minutes per hour (L ₅₀)	15 minutes per hour (L ₂₅)	5 minutes per hour (L _{8.33})	1 minute per hour (L _{1.67})	Anytime (L _{max})
Exterior	Daytime (7 AM – 10 PM)	55	60	65	70	75
	Nighttime (10 PM – 7 AM)	50	55	60	65	70
Interior	Daytime (7 AM – 10 PM)	--	--	55	60	65
	Nighttime (10 PM – 7 AM)	--	--	45	50	55

Source: City of Laguna Niguel, Municipal Code: Noise Control. Section 6.6.5: Exterior Noise Standards and Section 6.6.6: Interior Noise Standards.

Notes:

- If the alleged offensive noise consists entirely of impact noise, simple tone noise, speech or music, or any combination thereof, each of the noise levels specified in the table shall be reduced by 5 dBA.
- If the ambient noise level exceeds any of the first four noise limit categories above (i.e., the 30-, 15-, 5-, or 1-minute limits), the cumulative period applicable to that category will be increased to reflect the ambient noise level. In the event the ambient noise level exceeds the fifth (i.e., anytime) noise limit category, the maximum allowable noise level under said category will be increased to reflect the maximum ambient noise level.

dBA = A-weighted decibels

L_{max} = maximum sound level

Referring to Section 6.6.7(5) of the Municipal Code, construction noise is exempt from provisions in the noise ordinance provided that construction activities do not occur between the hours of 8:00 p.m. and 7:00 a.m. on weekdays or Saturdays, or at any time on Sundays or federal holidays.

City of Laguna Niguel General Plan and Noise Element

The LNGP includes a Noise Element, which is a comprehensive program to identify and temper environmental factors that potentially threaten community health and safety. The Noise Element requires consideration of potential noise impacts early in the planning process and provides interior and exterior noise standards for various land uses as summarized in Table 3-21. These noise standards are typically applied to transportation (i.e., non-stationary) noise standards.

Table 3-21. City of Laguna Niguel General Plan Interior and Exterior Noise Standards

Land Use	Noise Standards (CNEL, dBA)	
	Interior	Exterior
Residential Detached, Residential Attached	45	65
Neighborhood Commercial, Community Commercial	--	70
Professional Office	50	70
Industrial/Business Park	55 ¹	75
Community Commercial/Professional Office	--	70
Professional Office/Industrial/Business Park/Community Commercial	--	75
Public/Institutional, Public Institutional/Professional Office	50	70
Schools	50 ²	65 ²
Parks and Recreation	--	70

Source: City of Laguna Niguel, General Plan: Noise Element. Chapter 6, Section VIII: Goals, Policies, and Actions (Table N-9). August 4, 1992.

Notes:

- Where quiet is a basis for use.
- In interior or exterior Classroom Areas during school operating hours.

CNEL = Community Equivalent Noise Level
dBA = A-weighted decibel

Impact Analysis

Would the project:

- a. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less-than-Significant Impact with Mitigation Incorporated. Noise generated by project construction and operation could result in impacts on nearby receptors. Additionally, existing ambient noise levels from nearby highway and train activity, as well as the adjacent car dealership, could affect the proposed residential receptors. These impacts are described below along with the recommended mitigation measures.

Construction

Two types of short-term noise impacts could occur during construction of the proposed project. First, construction workers who would commute to the site and trucks that would transport equipment and materials would incrementally increase noise levels on access roads. Although there would be a relatively high single-event noise level, which could cause an intermittent noise nuisance (e.g., passing trucks at 50 feet would generate up to 76 dBA), the contribution of construction traffic to ambient noise levels (such as the daily CNEL) would be low due to the infrequent traffic volume. Therefore, short-term construction-related impacts associated with commuting workers and transporting equipment to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during site preparation including demolition and crushing of existing below grade and street improvements, grading,

building construction, paving, and architectural coating at the project site. Construction-related noise levels would typically be higher than existing ambient noise levels in the project area, but would cease once construction of the project is completed. Construction activities are estimated to last 1 year.

Project construction would be implemented in five phases: (1) Site Preparation, (2) Grading, (3) Building Construction, (4) Paving, and (5) Architectural Coating. A summary of the equipment schedule for each phase is provided in Appendix I.

Construction-related noise was analyzed using the Federal Highway Administration’s (FHWA’s) Roadway Construction Noise Model (2008), which predicts average noise levels (L_{eq}) at nearby receptors by analyzing the type of equipment, usage factor, distance from source to receptor, and presence or absence of intervening shielding between source and receptor.

The construction equipment used on any given day could be mobile across the entire project site. Therefore, the distances used in the analysis were the acoustical average distances³ to the anticipated work area for each phase. The only exception is the crushing operation, which would be stationary. The crushing plant would be located in the southeast corner of the property, near the current hydrauger dewatering operation. The distances used in the analysis of crusher noise were measured from the proposed crusher location to each receptor. Actual noise levels during construction would vary depending on the relative distance from a given receptor to the current construction activities. As a conservative assumption, noise barrier effects that might be provided by intervening buildings or topography were excluded from analysis. The results of the analysis at four of the closest noise-sensitive receptors are provided in Appendix I and summarized in Table 3-22. Figure 3-17 shows the locations of the noise-sensitive receptors in relation to the project site.

Table 3-22. Construction Noise Levels by Phase at Sensitive Receptors

Construction Phase/Location	Hourly Average Noise Level (1-hour L_{eq}) Due to Construction, dBA			
	Receptor 1: Single-Family Residence at 28832 Mira Vista	Receptor 2: Single-Family Residence at 25834 Avatar	Receptor 3: Single-Family Residence at 29012 Mira Vista	Receptor 4: Saddleback Church at 29251 Camino Capistrano
Phase 1: Site Preparation	65.2	77.0	62.7	65.9
Phase 2: Grading	65.3	78.2	62.5	64.3
Phase 3: Building Construction	62.6	69.5	60.1	62.2
Phase 4: Paving	58.3	64.5	56.1	58.5
Phase 5: Architectural Coating	51.0	57.8	48.4	50.6

dBA = A-weighted decibel
 L_{eq} = equivalent noise level

³ The acoustical average distance is used to represent noise sources that are mobile or distributed over an area (such as a construction site); it is calculated by multiplying the shortest distance between the receptor and the noise source area by the farthest distance and then taking the square root of the product. This distance considers noise from across the site but places greater emphasis on the noise sources operating closest to the receptor.

Construction activity at the project site would be limited to the hours permitted by the City's Municipal Code, and any construction noise that occurs outside of those hours could cause a significant impact. Therefore, **Mitigation Measure MM NOI-1** is provided to limit noise-generating construction activity to the permitted daytime hours and to implement standard noise-reduction methods to minimize potential annoyance at nearby noise-sensitive receptors. With the implementation of **Mitigation Measure MM NOI-1**, impacts would be less than significant.

MM NOI-1: Limit construction hours and employ noise-reducing construction practices. The following noise control measures shall be incorporated into the project contract specifications in order to minimize construction noise effects.

- Construction activities shall be limited to the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays, and shall not occur at any time on Sundays or federal holidays. Construction personnel shall not be permitted on the job site, and material or equipment deliveries and collections shall not be permitted, outside of these hours.
- All construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications.
- All mobile or fixed construction equipment used on the project that is regulated for noise output by a local, state, or federal agency shall comply with such regulations while in the course of project activity.
- All construction equipment shall be properly maintained. (Poor maintenance of equipment may cause excessive noise levels.)
- All construction equipment shall be operated only when necessary and shall be switched off when not in use.
- Construction employees shall be trained in the proper operation and use of the equipment. (Careless or improper operation or inappropriate use of equipment can increase noise levels. Poor loading, unloading, excavation, and hauling techniques are examples of how a lack of adequate guidance and training may lead to increased noise levels.)
- Electrically powered equipment shall be used instead of pneumatic or internal combustion-powered equipment, where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
- Construction site and access road speed limits shall be established and enforced during the construction period.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- To minimize potential public objections to unavoidable noise, the contractor shall maintain good communication with the surrounding community regarding the schedule, duration, and progress of the construction. Notification shall be provided advising that there will be loud noise associated with construction and providing a telephone contact number for affected parties to ask questions and report any unexpected noise levels. The on-site

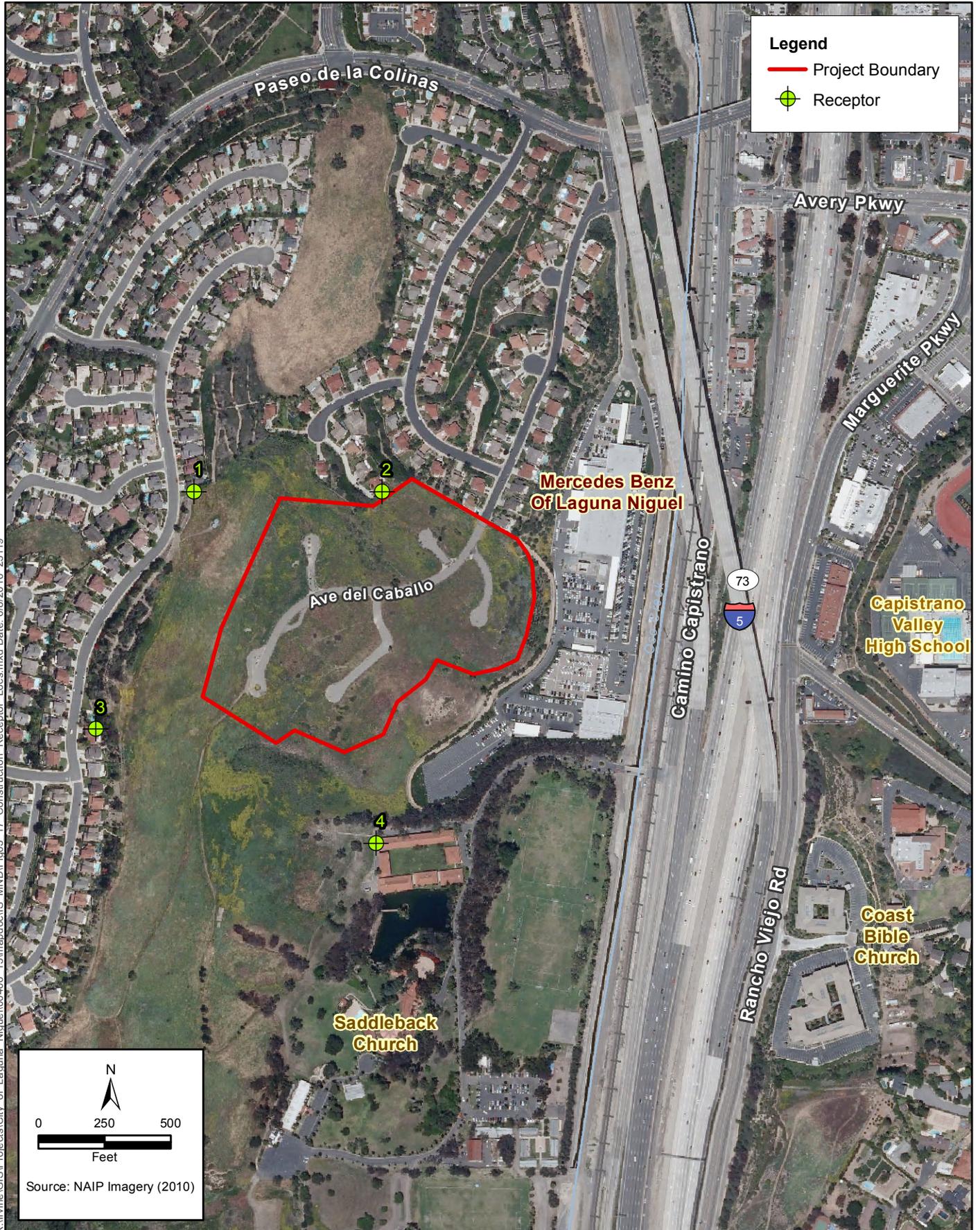


Figure 3-17
Construction Noise Analysis Receptor Locations
SunPointe Residential Project

construction supervisor shall have the responsibility and authority to receive and resolve noise complaints.

Operation

Off-site Traffic Noise Impacts

Implementation of the proposed project would result in a permanent increase in traffic volumes on roadways in several noise-sensitive areas surrounding the project site. The analysis of traffic noise levels was conducted using a proprietary spreadsheet model,⁴ with calculations based on data from the FHWA Traffic Noise Model (TNM®), Version 2.5, Look-Up Tables (FHWA 2004). The parameters used to estimate vehicular traffic noise were average daily traffic (ADT) volumes, vehicle mix (percentages of automobiles, medium trucks, and heavy trucks), posted speed limits, and roadway and receiver locations. To provide a conservative assessment, existing barriers were not included in this analysis. Traffic volumes were derived from the June 2016 *Transportation Impact Analysis Report* (TIA) (Appendix J). For Avenida del Caballo and Charreadas, ADT volumes were provided directly in the TIA; for all other streets, PM peak-hour traffic volumes were converted to ADT volumes using ratios provided by the traffic engineer (PM peak-hour traffic volumes were used because they were generally higher than AM volumes). Vehicle mix data were gathered from *Sound Attenuation Guidelines – Vehicle Mix by Time of Day* (County of Orange Environmental Management Agency 1984). Distances from the centerline of the roadway to the receivers were derived using Google Earth.

Traffic noise levels at off-site noise-sensitive receptors with implementation of the proposed project would range from 46 to 67 dB CNEL under Existing Year conditions and from 46 to 68 dB CNEL under Opening Year and Future Year conditions. Traffic noise level increases at off-site noise-sensitive receptors due to implementation of the proposed project would range from 0 to 2.4 dB CNEL under Existing Year and Opening Year conditions, and -0.2 (i.e., a 0.2 dB decrease) to 2.4 dB CNEL in Future Year conditions. A more detailed summary of the results and roadways studied in this analysis is provided in Table 3-23.

A noise impact is considered to be significant when the predicted noise level at a receiver location exceeds the exterior noise standard (as defined in Table 3-21) for its given land use due to implementation of the proposed project. The primary noise-sensitive receptors that could be affected by noise from project-related traffic are residences along the affected roadways. As noted in Table 3-21, residential land uses have an exterior noise standard of 65 dB CNEL. Analysis shows that noise levels are predicted to exceed 65 dB CNEL at a number of off-site locations, but that these exceedances would not be caused by project-related traffic because they would occur with or without implementation of the project. Furthermore, the actual project-generated traffic noise increases at these locations would be 0 to 0.2 dB CNEL, which would be an imperceptible change.

At all other locations, the predicted traffic noise levels are below 65 dB CNEL with or without the project, and are not predicted to increase by more than 2.4 dB CNEL due to implementation of the proposed project. Changes in noise levels of less than 3 dB are generally considered to be imperceptible or barely perceptible to the human ear (Caltrans 2013b). Therefore, no significant off-site traffic noise impacts are predicted to occur and no mitigation measures are required.

⁴ See Appendix I for model inputs and outputs.

Table 3-23. Estimated Traffic Noise Levels at Off-site Receivers

Roadway/Segment	Estimated Traffic Noise Levels at Nearest Receiver to Roadway Centerline, dB CNEL								
	Existing	Existing with Project	Increase Over Existing	Opening without Project	Opening with Project	Increase Over Opening without Project	Future without Project	Future with Project	Increase Over Future without Project
Avenida del Caballo									
Star Drive to Project Site	49.4	51.8	2.4	49.4	51.8	2.4	49.4	51.8	2.4
Charreadas									
Paseo de la Colinas to Avenida Del Caballo	45.5	45.5	0.0	45.5	45.5	0.0	45.5	45.5	0.0
Crown Valley Parkway									
West of Cabot Road	65.3	65.3	0.0	66.1	66.2	0.1	66.3	66.3	0.0
East of Cabot Road	63.7	63.7	0.0	64.8	64.8	0.0	64.9	64.9	0.0
Cabot Road									
North of Crown Valley Parkway	64.8	64.8	0.0	66.6	66.6	0.0	67.0	66.8	-0.2
Crown Valley Parkway to Paseo de la Colinas	65.7	65.7	0.0	66.5	66.5	0.0	66.6	66.7	0.1
Paseo de la Colinas									
West of Cabot Road	67.0	67.0	0.0	67.4	67.4	0.0	67.6	67.6	0.0
Cabot Road to Star Drive	67.0	67.1	0.1	67.5	67.6	0.1	67.7	67.7	0.0
Star Drive to Camino Capistrano	57.8	58.0	0.2	58.3	58.4	0.1	58.4	58.6	0.2
Star Drive									
South of Paseo de la Colinas	53.3	54.7	1.4	53.6	54.9	1.3	53.7	55.0	1.3
Camino Capistrano									
North of Paseo de la Colinas	56.7	56.7	0.0	57.0	57.0	0.0	57.2	57.2	0.0
Paseo de la Colinas to Avery Parkway	60.8	60.9	0.1	61.2	61.3	0.1	61.4	61.5	0.1
South of Avery Parkway	64.9	64.9	0.0	65.1	65.1	0.0	65.3	65.3	0.0

Estimated Traffic Noise Levels at Nearest Receiver to Roadway Centerline, dB CNEL

Roadway/Segment	Existing	Existing with Project	Increase Over Existing	Opening without Project	Opening with Project	Increase Over Opening without Project	Future without Project	Future with Project	Increase Over Future without Project
Avery Parkway									
Camino Capistrano to I-5 Southbound Ramps	58.2	58.3	0.1	58.6	58.7	0.1	58.8	58.9	0.1
I-5 Southbound Off-Ramp to I-5 Northbound On-Ramp	57.9	58.0	0.1	58.3	58.4	0.1	58.5	58.5	0.0
East of I-5 Northbound On-Ramp	66.8	66.8	0.0	67.1	67.2	0.1	67.3	67.3	0.0
I-5 Southbound Off-Ramp									
North of Avery Parkway	59.9	60.0	0.1	60.1	60.2	0.1	60.3	60.4	0.1
I-5 Northbound On-Ramp									
North of Avery Parkway	60.4	60.5	0.1	60.7	60.7	0.0	60.9	60.9	0.0

CNEL = Community Equivalent Noise Level

dB = decibel

I-5 = Interstate 5

On-site Traffic Noise Impacts

CEQA requires analysis of the project's impact on the environment. For noise, that means whether traffic or other noise sources generated by the project would affect surrounding properties. Given the proximity to the freeway, this section analyzes whether future homeowners would be affected by existing noise sources. The methodology for this analysis is described in Appendix I.

Table 3-24 lists the modeled receivers and the estimated exterior noise levels under Opening Year and Future (2035) conditions for the proposed project. Modeled receiver locations are also shown in Appendix I. The residential lot locations and numbering used in the table correspond to the site plans provided in the *SunPointe Vesting Tentative Tract Map No. 17433 & Site Development Permit SP 12-07P* (Hunsaker & Associates 2015).

Table 3-24. Modeled Exterior Traffic Noise Levels

Receiver	Proposed Land Use/Exterior Noise Standard (dB CNEL)	Proposed Lot Number and Location on Lot	Opening Year (2018) Traffic Noise Level (dB CNEL)	S?	Future Year (2035) Traffic Noise Level (dB CNEL)	S?
M1	Park/70	Lot 73 Park; east side	71	Yes	72	Yes
M2	Park/70	Lot 73 Park; west side	65	No	68	No
M3	Residential/65	Lot 1 Residence; east side	71	Yes	73	Yes
M4	Residential/65	Lot 2 Residence; south side	69	Yes	71	Yes
M5	Residential/65	Lot 6 Residence; north side	67	Yes	68	Yes
M6	Residential/65	Lot 5 Residence; southwest side	68	Yes	70	Yes
M7	Residential/65	Lot 8 Residence; east side	68	Yes	70	Yes
M8	Residential/65	Lot 7 Residence; north side	60	No	62	No
M9	Residential/65	Lot 14 Residence; east side	69	Yes	71	Yes
M10	Residential/65	Lot 22 Residence; west side	48	No	50	No
M11	Residential/65	Lot 26 Residence; southeast side	68	Yes	70	Yes
M12	Residential/65	Lot 29 Residence; east side	67	Yes	69	Yes
M13	Residential/65	Lot 37 Residence; south side	50	No	52	No
M14	Residential/65	Lot 34 Residence; northeast side	67	Yes	69	Yes
M15	Residential/65	Lot 38 Residence; south side	56	No	58	No
M16	Residential/65	Lot 41 Residence; east side	67	Yes	69	Yes
M17	Residential/65	Lot 44 Residence; north side	65	No	67	Yes
M18	Park/70	Lot 74 Park; center	61	No	63	No
M19	Residential/65	Lot 55 Residence; east side	67	Yes	68	Yes
M20	Residential/65	Lot 46 Residence; west side	45	No	47	No
M21	Residential/65	Lot 50 Residence; west side	48	No	50	No
M22	Residential/65	Lot 53 Residence; east side	66	Yes	67	Yes
M23	Residential/65	Lot 62 Residence; south side	64	No	66	Yes

Receiver	Proposed Land Use/Exterior Noise Standard (dB CNEL)	Proposed Lot Number and Location on Lot	Opening Year (2018) Traffic Noise Level (dB CNEL)	S?	Future Year (2035) Traffic Noise Level (dB CNEL)	S?
M24	Residential/65	Lot 60 Residence; north west side	54	No	56	No
M25	Residential/65	Lot 69 Residence; north side	66	Yes	68	Yes
M26	Residential/65	Lot 66 Residence; east side	69	Yes	71	Yes

Note: A correction factor of +0.7 dB was applied to noise levels at each receiver.

CNEL = Community Equivalent Noise Level

dB = decibel

S? = significant impact

A noise impact is considered to be significant when the predicted noise level at a receiver location exceeds the exterior noise standard for its given land use, as defined in the City's Noise Element (refer to Table 3-21). Under Opening Year (2018) plus project conditions, there are 15 future receivers where the predicted noise levels would exceed the standards. Under Future Year (2035) plus project conditions, there are 17 future receivers where the predicted noise levels would exceed the standards. These noise impacts would occur at locations throughout the project site. The project is therefore considered to expose future residents within the project site to significant on-site traffic noise.

The affected locations are primarily rear yards and parks with unshielded (or only partially shielded) views of the I-5 and SR-73 freeways to the northeast, east, or southeast. This lack of shielding, either by topography or proposed buildings, would occur because the site would be graded in tiers, with a substantial increase in elevation occurring from east to west across the proposed project site. In order to mitigate noise levels at affected receivers, noise barriers would need to be constructed to provide shielding between the freeways and all affected parks and residential rear yards. Therefore, **Mitigation Measure MM NOI-2** is recommended to ensure that the final project design would reduce the impact of traffic noise on proposed exterior noise-sensitive locations to a less-than-significant level.

Based on information published in Caltrans' *Technical Noise Supplement* (Caltrans 2013b) and EPA's *Protective Noise Levels* (U.S. Environmental Protection Agency 1978), typical residential construction in Southern California will provide an exterior-to-interior noise reduction of 20 to 24 dB with doors and windows closed. Therefore, exterior noise levels in excess of 65 to 69 dB CNEL could lead to interior noise levels that exceed the City's standard of 45 dB CNEL (i.e., $65 - 20 = 45$ dB CNEL, and $69 - 24 = 45$ dB CNEL). Referring to Table 3-22, multiple lots throughout the project site would be exposed to noise levels above 65 dB CNEL. The noise barriers required under **Mitigation Measure MM NOI-2** would eliminate the majority of impacts at first-floor residential elevations by reducing the exterior noise exposure to 65 dB CNEL or less. However, elevations that would not receive the same degree of noise attenuation from these barriers (primarily second-floor elevations) would still be exposed to exterior noise levels in excess of 65 dB CNEL, which could lead to potentially significant interior traffic noise impacts. Therefore, **Mitigation Measure MM NOI-3** is recommended to ensure that the final project design would reduce the impact of traffic noise on proposed interior noise-sensitive locations to a less-than-significant level.

MM NOI-2: Prior to issuance of certificates of occupancy, construct noise barriers, which can include glass walls, around affected receivers to reduce noise levels below the applicable exterior noise standard. The following noise control measures will be incorporated into the project design in order to reduce exterior traffic noise levels to less-than-significant levels at proposed on-site noise-sensitive locations.

- Noise barriers shall be constructed as necessary to reduce future exterior noise levels to 70 dB CNEL or less at the park located on the eastern side of the project site, and to 65 dB CNEL or less at all residential rear yards.
- Preliminary analysis indicates that barrier heights of approximately 5 to 6 feet will be required at the top of slope surrounding the northern, eastern, and southern sides of the park and lots with exposed line-of-sight views to the nearby I-5 and SR-73 freeways. The actual barrier heights and locations shall be determined during a detailed noise study prepared by a qualified acoustical consultant based on final site, grading, and architectural plans for the project.

MM NOI-3: The design of all on-site residential buildings shall comply with the City's applicable interior noise standard. The following noise control measures shall be incorporated into the project in order to reduce interior traffic noise levels to a less-than-significant levels at proposed on-site noise-sensitive locations.

- Prior to issuance of building permits for any proposed residence, a detailed noise assessment shall be prepared to demonstrate that the interior noise levels will not exceed the City's standard of 45 dB CNEL. The noise assessment shall be prepared by a qualified acoustical consultant based on final site, grading, and architectural plans, and shall describe any measures required to meet the standard. Such measures may include, but are not limited to, upgraded façade construction and/or specification of sound-rated windows. The noise assessment may be conducted as part of the same study required under **Mitigation Measure MM NOI-2**, and should be based on the predicted exterior noise levels after inclusion of any necessary exterior noise barriers.
- All residential units shall be designed with a heating, ventilating, and air conditioning (HVAC) system (i.e., mechanical ventilation) to provide for a habitable environment with doors and windows closed.

On-site Stationary Noise Impacts

Proposed on-site residences would potentially be exposed to noise from the adjacent car wash and auto body repair shop at Mercedes Benz of Laguna Niguel east of the proposed project site. Operating hours of the car wash and auto body shop fall within daytime hours (i.e., 7 a.m. to 10 p.m.) as defined by the City's Municipal Code (see Table 3-20).

The noise level standards in Table 3-20 were used to determine potential impacts at the on-site receiver location closest to the noise sources at Mercedes Benz of Laguna Niguel. The City's Municipal Code allows for adjustments in the noise level standards if measured ambient levels exceed the defined standards. The adjusted noise level standards are shown in Table 3-25 below.

Table 3-25. Noise Ordinance Standards and Adjusted Standards (dBA)

	L₅₀	L₂₅	L_{8.33}	L_{1.67}	L_{max}
Exterior daytime noise level standards (see Table 3-20)	55.0	60.0	65.0	70.0	75.0
Measured ambient noise levels (ST-2; see Table 3-17)	65.4	66.0	66.5	71.5	75.4
Adjusted noise level standards	65.4	66.0	66.5	71.5	75.4
L ₅₀ = sound level exceeded 50% of the time (more than 30 minutes per hour)					
L ₂₅ = sound level exceeded 25% of the time (more than 15 minutes per hour)					
L _{8.33} = sound level exceeded 8.33% of the time (more than 5 minutes per hour)					
L _{1.67} = sound level exceeded 1.67% of the time (more than 1 minute per hour)					
L _{max} = maximum sound level					

Two short-term (approximately 15 to 20 minutes in duration) measurements were taken west of the car wash and auto body repair shop in order to determine the noise levels generated by those sources. It is noted that traffic noise from the nearby I-5 and SR-73 freeways could not be avoided during measurement. Therefore, the measured noise levels of the car wash and auto body shop reported in Table 3-26 are likely somewhat conservative. To predict the noise level at the nearest receiver, the worst-case measured noise levels were propagated back to the nearest receiver location, assuming an attenuation rate of 6 dB per doubling of distance. The predicted noise levels at the nearest receiver were then compared to the adjusted noise level standards shown in Table 3-25 to determine potential impacts. The results of this analysis are shown in Table 3-26. The distances used in the analysis were the acoustical average distances from the noise source to the measurement location and from the noise source to the nearest receiver.

Table 3-26. Mercedes Benz of Laguna Niguel Noise Source Levels at On-site Receivers (dBA)

Name	L ₅₀	L ₂₅	L _{8.33}	L _{1.67}	L _{max}
Measured worst-case noise levels (at 250 feet)	60.3	60.7	61.5	62	76
Estimated worst-case noise levels at nearest receiver (at 360 feet)	57.1	57.5	58.3	58.8	72.8
Adjusted noise level standards (see Table 3-25)	65.4	66.0	66.5	71.5	75.4
Exceeds adjusted noise level standards at nearest receiver location?	No	No	No	No	No
L ₅₀ = sound level exceeded 50% of the time (more than 30 minutes per hour)					
L ₂₅ = sound level exceeded 25% of the time (more than 15 minutes per hour)					
L _{8.33} = sound level exceeded 8.33% of the time (more than 5 minutes per hour)					
L _{1.67} = sound level exceeded 1.67% of the time (more than 1 minute per hour)					
L _{max} = maximum sound level					

The impact of stationary noise sources on the proposed project site would be considered significant if they exceed the adjusted noise level standards. Analysis shows that noise levels contributed by the car wash and auto body shop at Mercedes Benz of Laguna Niguel to the nearest noise-sensitive receiver are below the applicable standards, and are therefore considered less than significant. It should be noted that all noise levels other than L₅₀ also comply with the unadjusted noise standards defined by the City's Municipal Code. Furthermore, implementation of **Mitigation Measures MM NOI-2** and **MM NOI-3** would reduce the on-site noise levels from stationary sources and would further reduce any potential impacts.

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

Less-than-Significant Impact with Mitigation Incorporated. Groundborne vibration generated by construction activities would, at times, be perceptible at nearby sensitive receptors but would be below applicable criteria for potential building damage. **Mitigation Measure MM NOI-1** would limit all on-site construction activities to the daytime hours permitted by the City’s Municipal Code and the impacts would be less than significant. Additional analysis is provided below. Proposed operation of the project would not include any new activities or equipment that would generate perceptible groundborne vibration levels; therefore, no impacts would occur as a result of project operations, and this impact has not been analyzed quantitatively.

Heavy construction equipment has the potential to produce groundborne vibration levels that would be perceptible to people in the surrounding area. Based on the anticipated construction equipment list for the project, the worst-case vibration levels would be associated with the operation of heavy earthmoving equipment such as excavators, dozers, backhoes, and graders. Based on data published by Caltrans (Caltrans 2013a), similar heavy equipment items (large bulldozers) produce peak particle velocity (PPV) vibration levels of 0.089 inch per second at a distance of 25 feet.

Vibration levels from construction equipment attenuate as they radiate from the source. The equation to determine vibration levels at a specific distance states that

$$PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.3}$$

where PPV_{ref} is the PPV at a reference distance of 25 feet, D is the distance from the equipment to the sensitive receptor, and the value of 1.3 is determined based on the soil conditions at the project site, which are understood to be silt/clay (Caltrans 2013a). Using this equation, Table 3-27 summarizes the estimated vibration levels at the closest sensitive receptors to the project site and compares them to the applicable thresholds for potential vibration damage to buildings. The threshold is based on a continuous/frequent intermittent vibration source (i.e., earthmoving equipment) affecting “older residential structures,” which likely provides a conservative assessment because the nearby structures are all relatively modern (30 years old or newer).

Table 3-27. Construction Vibration Levels at Sensitive Receptors

	Distance to closest earth moving (feet)	Vibration level, PPV (inch per second)	Vibration Threshold for Continuous/Frequent Intermittent Sources	Significant?
Receptor 1: Residence at 28832 Mira Vista	290	0.0037	0.3	No
Receptor 2: Residence at 25834 Avatar	50	0.0361	0.3	No
Receptor 3: Residence at 29012 Mira Vista	415	0.0023	0.3	No
Receptor 4: Saddleback Church Rancho Capistrano at 29251 Camino Capistrano	355	0.0028	0.3	No

PPV = peak particle velocity

At Receptors 1, 3, and 4, the predicted PPV is below the “barely perceptible” criterion of 0.01 inch per second provided in Table 3-19, and the impact would be less than significant.

Based on the predicted PPV at Receptor 2, it is likely that groundborne vibration from construction activities would, at times, be perceptible at the closest homes north of the project site. According to the criteria provided in Table 3-19, the predicted PPV of 0.0361 inch per second is close to the 0.04 inch per second criterion for “distinctly perceptible” vibration. Such vibration could cause a significant impact if it occurred during nighttime hours (when people are typically resting/sleeping and most sensitive to vibration) or for a prolonged period of time. However, due to the mobile nature of the construction equipment and the large size of the project site, the duration of activity close to any individual receptor would be limited and the vibration levels would reduce rapidly as work moves away from the receptor location. While the City’s Municipal Code does not provide quantitative construction vibration standards, it does exempt construction activities from the noise ordinance provided they occur only during the permitted daytime hours. Implementation of **Mitigation Measure MM NOI-1** would ensure that construction only occurs during the permitted daytime hours and would eliminate potentially significant impacts that could be caused by groundborne vibration occurring at nighttime. With the implementation of **Mitigation Measure MM NOI-1**, the impact would be less than significant.

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

Less-than-Significant Impact. Construction noise would be temporary and, as such, would not cause any permanent increases in ambient noise levels. Implementation of the proposed project would result in a permanent increase in traffic volumes on several roadways surrounding the project site. However, analysis shows that the noise increases would be small (mostly 0 to 0.2 dB, with a maximum increase of 2.4 dB) and the impact on traffic noise levels in surrounding areas would be less than significant (refer to XII.a, above). Furthermore, the project itself is a residential development that is not anticipated to generate significant noise levels that would propagate onto surrounding properties. Therefore, impacts would be less than significant.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact with Mitigation Incorporated. Implementation of the proposed project would result in a temporary increase in ambient noise levels in the project vicinity associated with construction. As shown in Table 3-22, construction noise levels are predicted to range from approximately 48 to 78 dBA L_{eq} at noise-sensitive receptors. Compared to existing ambient noise levels of approximately 56 dBA L_{eq} , construction noise could cause increases of approximately 1 to 22 dBA. (It is noted that the highest noise level increases would be limited to periods of the site preparation and grading phases when heavy equipment is working close to existing homes.) While noise increases due to project construction would be clearly perceptible at the closest noise-sensitive receptors, the overall impacts would be less than significant provided the construction occurs during the prescribed daytime hours when construction is exempt from the provisions of the City’s noise ordinance. Therefore, **Mitigation Measure MM NOI-1** is provided to limit noise-generating construction activity to the permitted daytime hours and to implement standard noise-reduction methods to minimize potential annoyance at nearby noise-sensitive

receptors. With implementation of **Mitigation Measure MM NOI-1**, impacts would be less than significant.

- e. For a project located within an airport land use land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The closest public airport to the project site (John Wayne Airport in Santa Ana) is more than 14 miles away. The closest military airport to the project site (Camp Pendleton) is more than 25 miles away. Therefore, the project would not expose people residing or working within the project area to excessive airport noise levels and the impact would be less than significant.

- 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?*

No Impact. There are no private airstrips in the vicinity of the proposed project. Therefore, the project would not expose people residing or working within the project area to excessive private airstrip noise levels and the impact would be less than significant.

XIII. Population and Housing	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site is in the City of Laguna Niguel, which has a land area of approximately 14.72 square miles in Orange County. According to the California Department of Finance, in 2013, the population of the City was estimated at 64,186, compared to an estimate of 3,087,715 for the entire county. From 2000 to 2012, the percentage change in population for the City was 2.9%, compared to a change of 7.4% county wide (City of Laguna Niguel, Housing Element).

In 2013, housing units in the City totaled 25,374, compared to 1,052,375 for all of Orange County (California Department of Finance 2013). In 2010, the homeownership rate for the City was 69%; the homeownership rate for Orange County in its entirety was 56%. For the City, the number of housing units in single-attached structures in 2012 was 5,107. For Orange County, the percentage of housing units in single-attached structures in 2012 was 127,707 (California Department of Finance 2013).

According to the LNGP Plan Housing Element (2013) the average housing size was 2.61 persons per household, compared to 3.02 persons per household for all of Orange County. The median household income for the City between 2006 and 2010 was \$97,018. The median household income for Orange County between 2006 and 2010 was \$74,344 (Laguna Niguel General Plan, Housing Element).

Impact Analysis

Would the project:

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

Less-than-Significant Impact.

Indirect Impacts

Construction activities associated with the proposed project would provide short-term employment opportunities. These jobs would be temporary and are expected to be filled by the local labor force.

Therefore, construction activities associated with the proposed project would not indirectly stimulate the need for additional housing or services.

The proposed project would extend roads and supporting infrastructure. Modifications to existing infrastructure would be conducted to specifically service the project site, not the greater surrounding areas; therefore, the proposed project would not result in indirect population growth by extending infrastructure to previously undeveloped areas.

As the proposed project would not indirectly stimulate the need for additional housing or services or result in the need for extended roads or addition of new infrastructure, indirect impacts would be less than significant.

Direct Impacts

The proposed project includes the construction of up to 71 single-family residences on a 19.5-acre site. The proposed project is expected to accommodate approximately 185 residents (California Department of Finance 2013). Compared to the City of Laguna Niguel's 2013 estimated population of 64,186, the additional 185 residents would represent less than a 1% increase in population. This increase would not be considered substantial population growth, and direct impacts related to the proposed project would be less than significant.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is within Community Profile Area 3 of the LNGP and is surrounded by residential, commercial, and open space land uses. The project site has been previously mass graded with 35 rough-graded residential lots with paved streets, curbs, gutters, manufactured slopes, and a trail. There are currently no buildings on the proposed project site. As such, the proposed project does not involve the demolition of any housing or structures. Furthermore, housing displacement impacts would not occur as a result of project implementation. Therefore, the proposed project would not displace people or housing, and no impact would occur.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project would not displace any people because there are currently no residents on the project site. Therefore, the construction of replacement housing is not required elsewhere. No impact would occur.

XIV. Public Services	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
1. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Public services available at or within the vicinity of the project site include fire and police protection, schools, and parks.

Fire Protection Services

OCFA provides structural fire protection, emergency medical and rescue services, hazardous inspections and response, and public education activities within the City. OCFA is a regional fire service agency that serves 23 cities in Orange County and all unincorporated areas. OCFA protects approximately 1,750,000 residents from its 71 fire stations throughout Orange County. OCFA response goals involve reaching an emergency call for service within approximately 8 minutes 90% of the time in urban areas (OCFA 2014).

Fire Station No. 9 would be the primary response station, located at the Shops at Mission Viejo, approximately 1 mile northeast of the project site. The station is equipped with one Paramedic Engine and one urban search and rescue truck and staffs eight individuals. The secondary responding station would be either Fire Station No. 39 with a Paramedic Assessment Engine or Fire Station No. 49 with one Paramedic Truck, which staffs seven individuals. The time response goal from receipt of call to on-scene is 7 minutes 20 seconds 80% of the time for first unit, which is a 5-minute drive radius for first unit responders. The second unit responders are within an approximately 7-minute drive radius. Fire Station No. 9 is included as a replacement under the Capital Improvement Plan within the next 5 years (Hernandez pers. comm.).

Police Protection Services

OCSD is responsible for providing police protection within the unincorporated areas of the County, as well as those incorporated cities, including the City of Laguna Niguel, that contract with OCSD to protect their cities.

Public Schools

The Capistrano Unified School District (CUSD) provides public education for the proposed project area. CUSD operates 64 schools and programs through the district including:

- 33 elementary schools
- 2 K-8 schools
- 10 middle schools
- 6 high schools
- 5 charter school
- 8 alternative school/programs

CUSD provides educational services to approximately 54,036 students from the cities of San Clemente, Dana Point, San Juan Capistrano, Laguna Niguel, Aliso Viejo, Mission Viejo, and Rancho Santa Margarita and the communities of Las Flores, Coto de Caza, Dove Canyon, Ladera Ranch, Rancho Mission Viejo, and Wagon Wheel (Capistrano Unified School District 2015a). Within CUSD there are seven elementary schools, two junior high (middle) schools, and two high schools serving the City of Laguna Niguel (City of Laguna Niguel 2015). According to the CUSD My School Locator tool, the project site would be served by Crown Valley Elementary School (K-5), Niguel Hills Middle School (6-8), and Dana Hills High School (9-12) (Capistrano Unified School District 2015b). However, CUSD is closing the Crown Valley Elementary School to accommodate the Community Roots Academy, beginning in the 2016-2017 school year. Community Roots Academy is a kindergarten through grade 8 school that currently shares the Wood Canyon Elementary School campus in Aliso Viejo. According to a December 2015 school district staff report, residents living within the attendance boundaries of Crown Valley Elementary School would be routed to either Moulton or Hidden Hills Elementary Schools (Morgan pers. comm.). Table 3-28 displays the CUSD 2015-2016 enrollment by school level, and Table 3-29 shows the 2015-2016 enrollment for the schools that would serve the project site.

Table 3-28. CUSD Enrollment for 2015-2016

Grade Level	Enrollment
Elementary (K-5)	23,249
Middle (6-8)	12,838
High School (9-12)	17,791
Total	53,878

Source: California Department of Education 2016a

Table 3-29. Enrollment for Schools Serving the Project Site for 2015–2016

School	Enrollment
Hidden Hills Elementary	370
Moulton Elementary	673
Niguel Hills Middle School	1,184
Dana Hills High School	2,679

Source: California Department of Education 2016b

Hidden Hills' enrollment for the 2016–2017 school year is projected to be approximately 358 students, including 80 students from the Crown Valley Elementary School area. Moulton Elementary is projected to have a 2016–2017 enrollment of approximately 618 students and is expected to absorb about 33 students from the Crown Valley Elementary School area (Morgan pers. comm.).

Parks

The City of Laguna Niguel Parks and Recreation Department manages recreational opportunities in the City. The City of Laguna Niguel has 31 public parks covering approximately 433 acres. Per the LNZC, the number of acres required to be dedicated to the City for park facilities is computed by multiplying the number of proposed dwelling units by the park land acres per dwelling unit in accordance with the appropriate density classification (Section 9-1-522). Private parks are also distributed throughout the City in various planned community developments.

Other Public Facilities

Library services are provided by the County of Orange in the vicinity of the project site, which maintains 33 library facilities throughout its service area. The Laguna Niguel public library is 2.6 miles southwest of the project site at 30341 Crown Valley Parkway.

Methodology

An impact on a public service is based on the potential increase in the number of users of a public service. Therefore, the best indicator of the project's impact on existing public services is based on the number of residents that could be added to the project area. Average persons per household in the City of Laguna Niguel is 2.61. Because the proposed project would result in the development of up to 71 single-family residential units, it can be expected that the proposed project would accommodate approximately 185 residents.

Impact Analysis

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

1. Fire protection?

Less-than-Significant Impact. During construction of the proposed project, fire protection services could be required; however, this phase of the project would be temporary and short term in nature,

and fire protection services are already available to the project area. Therefore, impacts are expected to be less than significant.

Operation of the proposed project would lead to an increased demand for fire protection services by increasing the permanent population. However, given that the City's estimated population in January of 2013 was approximately 64,186 (California Department of Finance 2013), the proposed project would represent an approximate population increase of less than 1%. Therefore, the proposed project is not expected to result in an additional strain on fire protection services such that new or expanded facilities would be required.

Additionally, a Fuel Modification Plan, per the 2013 California Fire Code (Appendix F), has been approved for the project. Moreover, the proposed project would be required to meet all access, water, and fire protection systems per the CBC and Fire Code as well as other City Municipal Codes, which would further reduce potential fire-related impacts of the proposed project. Furthermore, OCFA would require a Secured Fire Protection Agreement prior to approval of the project. The Secured Fire Protection Agreement would specify the pro-rata fair share funding of capital improvements necessary to establish adequate fire protection facilities, equipment, and personnel. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered fire protection facilities, and impacts related to fire protection services would be less than significant.

2. Police protection?

Less-than-Significant Impact. Implementation of the proposed project would include the development of up to 71 small-lot, single-family residences and accommodate up to 185 residents. During construction of the proposed project, police protection services could be required; however, this phase of the project would be temporary and short term in nature, and impacts are expected to be less than significant.

Operation of the proposed project would lead to an increased demand for police protection services. However, given that the City's estimated population in January of 2013 was approximately 64,186 (California Department of Finance 2013), the proposed project would represent an approximate population increase of less than 1%. Therefore, the proposed project is not expected to result in an additional strain on police protection services such that new or expanded facilities would be required.

With the City's regular coordination with OCSD and reviewing staffing levels in concert with population and geography during service contract renewals, it is expected that the proposed project would not result in substantial adverse impacts on police protection services such that new or expanded facilities would be required. Therefore, impacts would be less than significant.

3. Schools?

Less-than-Significant Impact with Mitigation Incorporated. Implementation of the proposed project would include the development of up to 71 single-family detached residential units and accommodate up to 185 residents. Using the CUSD current student generation factors for detached housing units to evaluate student population, the proposed project would generate approximately 27 elementary students, 8 intermediate students, and 7 high school students for a total of 42 students as outlined in Table 3-30.

Table 3-30. Student Generation from the Proposed Project

Housing Type	Number of Units	Student Generation Rate/Number of Students						
		K-5	6-8	9-12	Total			
Detached	71	0.3782	27	0.1074	8	0.1039	7	42

Source: City of Laguna Niguel 2011.

As mentioned above, the schools that would serve the proposed project include Hidden Hills and Moulton Elementary Schools (K-5), Niguel Hills Middle School (6-8), and Dana Hills High School (9-12). Pursuant to Government Code Section 65996, mitigation of impacts on school facilities is limited to the imposition of statutory school fees. Implementation of **Mitigation Measure MM PS-1** would ensure that the proposed project pays the statutory school impact fees to fully mitigate the addition of students to CUSD facilities. Therefore, after implementation of **Mitigation Measure MM PS-1**, impacts related to school facilities would be less than significant.

MM PS-1. Consistent with current City requirements, the developer will pay to CUSD no less than the statutory school fees in effect at the time of issuance of building permits.

4. Parks?

Less-than-Significant Impact. Section 9-1-522 of the LNZN requires either parkland dedication or payment of park fees. Based on the formula provided in Section 9-1-522, the proposed project has a local park code requirement of 0.68 acre, which the project would meet by providing 0.63 acre of park and 0.43 acre of trail improvements. Therefore, potential impacts are less than significant. Please see Section XV for a more complete analysis of park and open space requirements.

5. Other public facilities?

Less-than-Significant Impact. Implementation of the proposed project would include the development of up to 71 single-family detached residential units and accommodate up to 185 residents. Compared to the City's existing population of 64,186 in 2013, the additional 185 persons would represent an approximately 1% increase in population over existing conditions, which would not be considered substantial (California Department of Finance 2013). As such, while the proposed project would create a small additional demand for library services in the City and County, this increase would not be substantial, and new or expanded facilities would not be required as a result of the project. Furthermore, on June 23, 2013, the Orange County Board of Supervisors adopted resolution No. 13-062 with respect to the Development Fee Program for Branch Libraries, stating that those facilities have been constructed and accordingly the fee program is no longer needed. Therefore, impacts related to other public facilities would be less than significant.

XV. Recreation	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The City of Laguna Niguel Parks and Recreation Department manages recreational opportunities in the City. The City of Laguna Niguel has 31 public parks covering approximately 433 acres.

Regulatory Setting

State

Quimby Act

The 1975 Quimby Act (California Government Code §66477) was passed to require developers to help mitigate the impacts of property improvements. The Quimby Act authorizes local governments to pass ordinances requiring developers set aside land, donate conservation easements, or pay in-lieu fees for park improvements. The in-lieu fees must be paid and/or the land must be conveyed directly to the local public agencies that provide the community-wide park and recreation services (California Department of Parks and Recreation 2002).

Local

City of Laguna Niguel General Plan

The LNGP Open Space and Conservation Element includes the following General Plan policies.

Open Space/Parks/Conservation

Goal 1. Well-maintained public and private open space.

Policy 1.1 Preserve and protect the scenic and visual quality of areas designated for Open Space areas as a resource of public importance.

Policy 1.2 When siting a proposed development project, locate the project in areas containing less sensitive landforms and preserve the most sensitive landforms and natural resources of the project site as open space.

Goal 2. A system of public and private parks and recreation facilities achieved in cooperation with private community associations.

Policy 2.1 Provide park and recreational facilities that meet the needs of senior citizens, young adults, children, disabled individuals and families.

Policy 2.2 Plan for new high quality recreation facilities and programs.

Policy 2.3 Facilitate cooperative use of recreational facilities and programs.

Policy 2.4 Continue effective park and recreation area maintenance programs.

Policy 2.5 Ensure a flexible park master planning process that is responsive to community input.

Goal 3. A trail system that meets the bicycling, hiking and equestrian needs of residents.

Policy 3.1 Implement the Bikeway, and Hiking and Equestrian Plans.

Policy 3.2 Identify areas where trails can be located off-street and separated from vehicular traffic wherever possible. Class I bike trails shall not be located on or in conjunction with sidewalks intended for pedestrian use.

Policy 3.3 Expand existing regional trail facilities where attractive opportunities exist or can be created.

Policy 3.4 Plan bicycle routes to facilitate access to open space areas and recreational facilities, as well as other uses such as schools, neighborhoods and commercial centers.

Policy 3.5 Plan for the completion of the Aliso Creek Forest to the Sea Trail within Laguna Niguel.

Goal 5. Conservation of natural resource areas of community and regional significance.

Policy 5.1 Conserve sensitive species and plant communities and wildlife habitats to the maximum extent feasible through open space dedication and easements, creative site design and other workable mitigation actions.

Policy 5.2 Recognize Aliso Creek, Sulphur Creek, and Salt Creek as important open space resources and cooperate where feasible to enhance their conservation value.

Policy 5.3 Review the Plant Communities Map for all new development proposals.

Goal 6. Carefully review sensitive hillside areas within the community.

Policy 6.1 Provide for the preservation of sensitive hillside and canyon areas in accordance with the City's Hillside Protection Ordinance.

Policy 6.2 Consider significant natural features, including sensitive hillsides and ridgelines as part of the development review process.

City of Laguna Niguel Municipal Code

The LNZN has two different standards that govern parks and open space. Section 9-1-522 establishes the local park code requirement, which satisfies the Quimby Act requirements. Section 9-1-522 contains a formula for calculating the local park code requirement based on dwelling units per gross acre. For projects up to 6.5 dwelling units per acre, such as the proposed project, the park requirement is calculated by multiplying the number of dwelling units (71) by 0.0096. The result is a local park code requirement of 0.68 acre. This requirement can be satisfied by providing public or private park facilities or payment of in-lieu fees.

Section 9-1-35.13, Landscaping and Open Area, establishes a common open area requirement for projects within the Multifamily and RP zoning districts. Given the proposed Zone Change to the RP zone, the proposed project would be required to provide common open space area equal to or at least 25% of the buildable project area. In addition, at least 10% of the buildable project area must be devoted to active recreational uses.

Impact Analysis

Would the project:

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

Less-than-Significant Impact. The proposed project is expected to accommodate up to 185 residents, which in turn could generate an increased demand for recreation facilities. The LNZN includes two requirements for providing parkland. The local park code requirement to satisfy the Quimby Act is included in Section 9-1-522. Based on the formula provided in Section 9-1-522, the proposed project has a local park code requirement of 0.68 acre. Section 9-1-35.13 provides a second requirement for the project to provide 25% of the buildable project area as common open area, of which 10% must be devoted to active recreation uses. The following summarizes these requirements.

- Buildable Project Area: 10.59 acres
- Open Area Requirement: 2.65 acres (10.59 acres x 25%)
- Active Recreation Requirement: 1.06 acres (10.59 acres x 10%)

The proposed project provides a series of park and open space areas to satisfy these requirements. Regarding the local park code requirement of 0.68 acre, the proposed project includes two parks totaling 0.63 acre. The parks would provide a combination of recreation equipment and open space turf for recreational play. In addition, the proposed project includes improvements and dedication of a public trail that would be part of the Colinas Bluff trail system, which equals 0.43 acre. In total, the proposed project includes 1.06 acres of parkland, which completely satisfies the local park code requirement.

Regarding the Open Area requirement of 2.65 acres and Active Recreation requirement of 1.06 acres, the proposed project includes the following.

Open Area	acres	Active Recreation Area	acres
Landscape Common Area	1.70	Common Recreation Area	0.63
Common Recreation Area	0.63	Trail	0.43
Private Yard Area	1.86		
Trail	0.43		
Total	4.62	Total	1.06

Because the proposed project would meet the local park code standard and the open space and active recreation standards included in the LNZN, potential impacts on existing parks as a result of the increase in population from the proposed project would be less than significant.

- b. Include recreational facilities or require the construction of or expansion of recreational facilities that might have an adverse physical effect on the environment?**

Less-than-Significant Impact. As described above in XV.a, the proposed project includes sufficient parkland and open space areas to satisfy the project's local park code requirements. The construction of those facilities would occur on site and the potential impacts of constructing those

facilities are analyzed in this Initial Study. Because no off-site recreation facilities require construction or expansion, potential impacts would be less than significant.

XVI. Transportation/Traffic	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The analysis contained in this section is based on the results of the TIA prepared by Fehr and Peers, dated June 2016, and included in Appendix J.

Environmental Setting

Regional circulation facilities that connect the City of Laguna Niguel to surrounding areas of Orange County and Southern California include I-5 and SR-73, which are located at the City’s eastern boundary. A road network comprising arterial roads and local and collector streets makes up the local circulation in the City of Laguna Niguel.

Local roadways surrounding the project site include the following.

- Paseo de la Colinas (primary roadway)
- Street of the Golden Lantern (local street)

- Camino Capistrano (secondary roadway)

Public transportation is provided by the Orange County Transportation Authority (OCTA) and several routes pass by the project site, including Bus Route 90. Class II bikeways are located along Crown Valley Parkway, Camino Capistrano, Cabot Road, and Paseo de la Colinas. A Class I bikeway is adjacent to Camino Capistrano and the railroad tracks, along with a Class II bikeway on Camino Capistrano that connects to the existing bikeway at the intersection of Camino Capistrano and Paseo de la Colinas. The pedestrian network in the project area consists of sidewalks, pedestrian crosswalks, and pedestrian crossing controls. The Colinas Bluff Trail begins immediately north of the project site and runs adjacent to the site before going south along Street of the Golden Lantern. The Laguna Niguel/Mission Viejo Metrolink station is located just east of the project site. The Metrolink trains serve the Orange County, Inland Empire, and Los Angeles areas.

The traffic analysis information presented herein is based on the June 2016 project-specific TIA prepared by Fehr & Peers (Appendix J). In consultation with City Public Works staff, seven intersections within the jurisdictions of the City of Laguna Niguel and Caltrans were selected for inclusion in the study.

- Cabot Road & Crown Valley Parkway (City of Laguna Niguel)
- Camino Capistrano & Paseo de la Colinas (City of Laguna Niguel)
- Cabot Road & Paseo de la Colinas (City of Laguna Niguel)
- Star Drive & Paseo de la Colinas (City of Laguna Niguel)
- Camino Capistrano & Avery Parkway (City of Laguna Niguel)
- I-5 Southbound Ramps & Avery Parkway (Caltrans)
- I-5 Northbound Ramps & Avery Parkway (Caltrans)

The environmental setting as it relates to traffic includes existing operating traffic conditions in August 2015 (baseline conditions). Existing intersection operations were determined by using the Intersection Capacity Utilization (ICU) methodology for signalized intersections. The study area intersections analyzed in the TIA are shown on Figure 3-18. As shown in Table 3-31, existing signalized intersection operations within the study area, except for I-5 Southbound Ramps/Avery Parkway (level of service [LOS] E during AM peak hour and LOS D during PM peak hour) and I-5 Northbound Ramps/Avery Parkway (LOS D during AM peak hour), would operate at LOS C or better during the peak hour.

Table 3-31. Existing (2015) Peak Hour Intersection Capacity Analysis

Intersection	AM Peak		PM Peak	
	V/C ¹ (Delay ²)	LOS	V/C ¹ (Delay ²)	LOS
Cabot Road/Crown Valley Parkway	0.651	B	0.766	C
Camino Capistrano/Paseo de la Colinas	0.540	A	0.543	A
Cabot Road/Paseo de la Colinas	0.546	A	0.576	A
Star Drive/Paseo de la Colinas	0.355	A	0.328	A
Camino Capistrano/Avery Parkway	0.528	A	0.574	A
I-5 Southbound Ramps/Avery Parkway	0.606 (67.5)	B (E)	0.650 (39.9)	B (D)
I-5 Northbound Ramps/Avery Parkway	0.636 (45.1)	B (D)	0.667 (24.6)	B (C)

Source: Appendix J.

¹ - V/C (volume to capacity ratio) for signalized intersections is based on application of the Intersection Capacity Utilization methodology using Traffix 7.9 software.

² - Delay is average intersection delay (seconds) based on application of the Highway Capacity Manual 2010 methodology using Synchro 8 Build 806 software. Delay is reported for intersections under the jurisdiction of Caltrans for informational purposes only.

Once the baseline condition is established, traffic generated from the proposed project is estimated and added to the roadway system. Estimated traffic generated from the proposed project is based on the Institute of Traffic Engineers' *Trip Generation*, 9th Edition, dated 2012. Each house is assumed to generate 9.52 average daily trips over a 24-hour period. Therefore, the 71 lots would generate 676 average daily trips. Because these trips are spread out over a 24-hour period, of more concern is the number of vehicle trips that would occur during the AM and PM peak hours. During the AM peak hour the project would generate 53 trips, and during the PM peak hour the project would generate 71 trips. In consultation with City staff and based on actual traffic counts, the TIA assigned those trips to the roadway system, which is referred to as *trip generation*. In general, approximately 65% of trips would come from/go to the north (40% accessing I-5 and 25% accessing SR-73), 20% of trips would come from/go to the south using I-5, 10% of trips would come from/go to the east using Avery Parkway, and 5% of trips would come from/go to the west using Paseo De La Colinas.

Caltrans has plans to improve the I-5/Avery Parkway interchange. The improvements would reconstruct the entire interchange. It is expected that this project would begin construction in January 2019. The improvement project has been through environmental review and is funded. The project is completing final design before construction begins.

Acceptable performance criteria for local transportation facilities are established in the City's Circulation Element's LOS policy and the Orange County Congestion Management Program (CMP) guidelines. A significant impact would occur at a study intersection when project-related traffic causes:

- A signalized intersection to degrade from an acceptable LOS D or better to LOS E or LOS F; or
- The volume to capacity (V/C) ratio to increase by more than 0.01 at a signalized intersection operating at LOS E or LOS F.

If an intersection is operating at LOS E or worse and a significant impact is anticipated, mitigation is needed to improve the “plus project” delay to the existing “no project” delay. If an impact drops an acceptable LOS to a below-acceptable LOS, mitigation is required to bring the LOS back to the acceptable threshold level. No mitigation is required for intersections operating at or above the acceptable threshold (LOS D).

Impact Analysis

Would the project:

- 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?*

Less-than-Significant Impact. A description of impacts related to project construction and operation is provided below. As discussed, there would be no impacts that would exceed a level of significance for traffic, and all traffic impacts would remain less than significant with mitigation incorporated.

Construction Impacts

Construction activities are expected to generate a short-term, temporary increase in construction-related traffic. Construction traffic would be generated from several sources. Initial site preparation would require the mobilization of several pieces of equipment and the removal of primarily vegetation and other material from the site. Because existing improvements (concrete and asphalt) would be crushed on site, the amount of export of materials from the site would be greatly reduced. Once the site is prepared, mobilization of additional grading equipment would occur. Because the proposed project is generally balanced, no major import or export of soil is anticipated. However, equipment, material, and personal would access the site during construction. Once vertical construction begins, material delivery and construction workers would dominate site traffic. In total, construction traffic would be short term and less than long-term operational traffic. Therefore, any potential impacts on the operation of surrounding intersections are analyzed as part of the long-term operational traffic. Construction traffic could have the potential to cause short-term morning and afternoon traffic delays on roadways adjacent to the project site (e.g., Paseo de la Colinas). As such, implementation of a construction traffic management plan as required through standard conditions of approval would minimize construction traffic impacts, and impacts would be less than significant.

As part of the proposed project, the Applicant would prepare a construction traffic management plan to be approved by the City Engineer. The traffic management plan will include, but will not be limited to, the following.

- A street and site layout showing the location of construction activity and surrounding streets to be used as detour routes, including special signage
- A tentative start date and construction duration period for each phase of construction
- The names, addresses, and emergency contact numbers for those responsible for maintaining the traffic control devices during the course of construction

- Provisions for maintaining access for emergency vehicles at all times
- Provision of traffic controls within the site that may include flag persons wearing Cal OSHA-approved vests and using a “Stop/Slow” paddle to warn motorists of construction activity
- Standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area

Operational Impacts

The TIA includes an evaluation of operational impacts that compares the project-related traffic to existing baseline conditions in August 2015. Proposed project trip generation was estimated using the Institute of Transportation Engineers’ Land Use 210: Single-Family Detached Residential trip rates, which provide a generation factor of 9.52 daily vehicle trips per residential unit. Estimated daily trips generated as a result of proposed project implementation were then added to the roadway network during the AM and PM peak hours, which are between 7:00 a.m. and 9:00 a.m. and 4:00 p.m. and 6:00 p.m., respectively. As shown in Table 3-32, operation of the proposed project would generate approximately 124 net daily peak hour trips, with 53 trips occurring during AM peak hour and 71 during the PM peak hour.

Table 3-32. Project Traffic Generation Forecast

Land Use	ADT	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
SunPointe Residential Development	676	13	40	53	45	26	71

Source: Appendix J
ADT = average daily trips

The traffic distribution patterns for the proposed project-related trips traveling to and from the project site have been identified based on existing traffic flow patterns and the site’s proximity to the existing roadways. The analysis below provides projected operating conditions for site access, roadways, and intersections within the vicinity of the proposed project.

Vehicle Access

Vehicle access to the project site is provided by Avenida del Caballo, a residential street that dead-ends at the project site under existing conditions. Access to the nearest major roadway is provided by Star Drive and Paseo de la Colinas. The only entrance to the community would be gated, which would serve as the only traffic control on site. Given the direct access to the project site, vehicle access is deemed adequate.

Because there is only one roadway serving as the access for the proposed project, the potential impact from project traffic on Avenida del Caballo and Charreadas was analyzed. The City of Laguna Niguel does not have a threshold for the number of average daily trips on a local roadway. Therefore, local street average daily trip thresholds recently developed by the City of Glendale (comparable to Laguna Niguel for the purposes of this study) were used. An upper limit of 2,500 daily trips is assumed, meaning that more than 2,500 trips per day on a local residential street is uncomfortable for residents.

As shown in Table 3-33, two similar neighborhoods in the City of Laguna Niguel were also evaluated to compare the impacts of larger developments. Daily trip generation estimates were developed for these neighborhoods based on the number of housing units each neighborhood contains. For neighborhoods with multiple access points, a conservative 80%/20% split to the major access point was assumed to analyze the effects of the daily traffic volumes on the local roadways using the above-referenced neighborhood intrusion methodology. The results show that neighborhoods larger than the proposed project are still below the threshold of residential comfort.

Additionally, the same methodology was used to analyze the existing neighborhood surrounding the proposed project before and after the addition of project traffic. As a conservative approach, all traffic was assumed to use Avenida del Caballo to access the project site. As shown in Table 3-33, after the addition of project traffic, Avenida del Caballo and Charreadas are both forecast to operate below the upper limit, indicating that the effects of neighborhood intrusion would be less than significant.

Table 3-33. Proposed Project Neighborhood Intrusion Summary

Neighborhood Roadway	Roadway Type	# of Existing Housing Units	ADT Upper Limit	Existing (2015) Conditions	Existing (2015) Plus Project Conditions		
				ADT	Above or Below Upper Limit	ADT	Above or Below Upper Limit
Ivy Glen Drive	2-lane Residential	201	2,500	1,920	Below	--	--
La Hermosa	2-lane Residential	307	2,500	2,340	Below	--	--
Los Arboles Drive			2,500	590	Below	--	--
Ave del Caballo	2-lane Residential	95	2,500	730	Below	1,406	Below
Charreadas			2,500	190	Below	190	Below

Source: Appendix J

Notes:

1. For neighborhoods with two access points, a conservative 80/20% split was estimated, with 20% using the smaller connection.
2. Numbers are based on the Institute of Transportation Engineers' Trip Generation Manual (9th Edition).

Upper limit of residential traffic volume comfortably is based on the City of Glendale's Circulation Element of the General Plan methodology.

ADT = average daily trips

Intersections

The TIA analyzes seven study area intersections within the jurisdiction of the City of Laguna Niguel and Caltrans.

The traffic impacts of the proposed project during the peak hour were evaluated in the TIA based on the existing plus project traffic conditions at the seven study area intersections for the proposed project. Table 3-34 shows the changes in the performance of the intersections from the addition of project-related traffic generated compared to existing conditions. As shown below, all intersections under the jurisdiction of the City of Laguna Niguel would continue to operate at LOS D or better with implementation of the proposed project under existing plus project conditions. Intersections within

Caltrans jurisdiction would not have any change in LOS with the project compared to existing conditions.

Table 3-34. Existing Plus Project (2015) Peak Hour Intersection Level of Service

Intersection	AM Peak		PM Peak	
	V/C ¹ (Delay ²)	LOS	V/C ¹ (Delay ²)	LOS
Cabot Road/Crown Valley Parkway	0.655	B	0.770	C
Camino Capistrano/Paseo de la Colinas	0.559	A	0.558	A
Cabot Road/Paseo de la Colinas	0.552	A	0.576	A
Star Drive/Paseo de la Colinas	0.374	A	0.338	A
Camino Capistrano/Avery Parkway	0.539	A	0.589	A
I-5 Southbound Ramps/Avery Parkway	0.610 (67.8)	B (E)	0.663 (42.5)	B (D)
I-5 Northbound Ramps/Avery Parkway	0.638 (44.9)	B (D)	0.674 (26.7)	B (C)

Source: Appendix J.

¹ - V/C (volume to capacity ratio) for signalized intersections is based on application of the Intersection Capacity Utilization methodology using Traffix 7.9 software.

² - Delay is average intersection delay (seconds) based on application of the Highway Capacity Manual 2010 methodology using Synchro 8 Build 806 software. Delay is reported for intersections under the jurisdiction of Caltrans for informational purposes only.

LOS = level of service

The proposed project is anticipated to open in 2018. The TIA increased the amount of traffic on the roadway network by including other foreseeable projects and background growth. The model was re-run with project-generated traffic and the results are presented in the following tables.

Table 3-35. Intersection Level of Service Opening Year (2018) No Project Conditions

Intersection	AM Peak		PM Peak	
	V/C ¹ (Delay ²)	LOS	V/C ¹ (Delay ²)	LOS
Cabot Road/Crown Valley Parkway	0.828	D	0.939	E
Camino Capistrano/Paseo de la Colinas	0.589	A	0.597	A
Cabot Road/Paseo de la Colinas	0.614	B	0.646	B
Star Drive/Paseo de la Colinas	0.386	A	0.358	A
Camino Capistrano/Avery Parkway	0.533	A	0.563	A
I-5 Southbound Ramps/Avery Parkway	0.665 (>80.0)	B (F)	0.713 (53.0)	C (D)
I-5 Northbound Ramps/Avery Parkway	0.678 (50.1)	B (D)	0.718 (32.0)	C (C)

Source: Appendix J.

¹ - V/C (volume to capacity ratio) for signalized intersections is based on application of the Intersection Capacity Utilization methodology using Traffix 7.9 software.

² - Delay is average intersection delay (seconds) based on application of the Highway Capacity Manual 2010 methodology using Synchro 8 Build 806 software. Delay is reported for intersections under the jurisdiction of Caltrans for informational purposes only.

V/C and level of service (LOS) below the acceptable threshold are shown in bold.

Table 3-36. Intersection Level of Service Opening Year (2018) With Project Conditions

Intersection	AM Peak		PM Peak	
	V/C ¹ (Delay ²)	LOS	V/C ¹ (Delay ²)	LOS
Cabot Road/Crown Valley Parkway	0.831	D	0.943	E
Camino Capistrano/Paseo de la Colinas	0.608	B	0.612	B
Cabot Road/Paseo de la Colinas	0.620	B	0.647	B
Star Drive/Paseo de la Colinas	0.404	A	0.369	A
Camino Capistrano/Avery Parkway	0.541	A	0.576	A
I-5 Southbound Ramps/Avery Parkway	0.668 (>80.0)	B (F)	0.727 (56.3)	C (E)
I-5 Northbound Ramps/Avery Parkway	0.679 (53.1)	B (D)	0.725 (34.2)	C (C)

Source: Appendix J.

¹ - V/C (volume to capacity ratio) for signalized intersections is based on application of the Intersection Capacity Utilization methodology using Traffix 7.9 software.

² - Delay is average intersection delay (seconds) based on application of the Highway Capacity Manual 2010 methodology using Synchro 8 Build 806 software. Delay is reported for intersections under the jurisdiction of Caltrans for informational purposes only.

V/C and level of service (LOS) below the acceptable threshold are shown in bold.

As shown in these tables, the intersection of Cabot Road and Crown Valley Parkway is anticipated to deteriorate to LOS E in 2018 during the PM peak hour without the project, which does not change when the project traffic is added. For Caltrans-controlled intersections, the LOS remains the same with and without project traffic when calculated using the ICU and the Highway Capacity Manual methodology; however, when using the Highway Capacity Manual methodology, the I-5 southbound ramps at Avery Parkway in the PM peak hour condition would deteriorate from LOS D to LOS E.

It is important to note that this analysis does not assume any improvements at the Avery Parkway interchange. It is understood, based on preliminary construction plans provided by the City, that the Caltrans I-5 Widening Project would improve the following roadways and would be in operation by opening year 2018.

- Camino Capistrano at Avery Parkway
 - Southbound through lane converted to a shared through-left turn lane
 - Addition of a northbound right turn lane
- I-5 southbound ramps at Avery Parkway
 - Southbound approach improved from one shared left-through-right lane and one left turn lane to two left turn lanes and two right turn lanes
 - Eastbound approach improved from three through lanes and one right turn lane to four through lanes and a shared through-right turn lane
 - Addition of one westbound left turn lane and two eastbound through lanes
- I-5 northbound ramps at Avery Parkway
 - Northbound approach improved from one shared left-through lane and one right turn lane to two left turn lanes and two right turn lanes
 - Addition of one eastbound left turn lane and one eastbound through lane

- Addition of two westbound through lanes

As shown in Tables 3-37 and 3-38, after completion of the Caltrans I-5 Widening Project, the Caltrans-controlled intersections along Avery Parkway would operate at LOS B and LOS C during both AM and PM peak hours based on the Highway Capacity Manual methodology.

Table 3-37. Intersection Level of Service Opening Year (2018) No Project Conditions

Intersection	AM Peak		PM Peak	
	V/C (Delay)	LOS	V/C (Delay)	LOS
I-5 Southbound Ramps/Avery Parkway	20.5	C	16.6	B
I-5 Northbound Ramps/Avery Parkway	15.6	B	12.4	B

Source: Appendix J

V/C = volume to capacity ratio

LOS = level of service

Table 3-38. Intersection Level of Service Opening Year (2018) Plus Project Conditions

Intersection	AM Peak		PM Peak	
	V/C (Delay)	LOS	V/C (Delay)	LOS
I-5 Southbound Ramps/Avery Parkway	20.4	C	16.6	B
I-5 Northbound Ramps/Avery Parkway	15.8	B	12.6	B

Source: Appendix J

V/C = volume to capacity ratio

LOS = level of service

Based on the City's significance threshold, one intersection, Cabot Road and Crown Valley Parkway, has the potential to experience a significant impact because with the project the LOS during the PM peak would be LOS E. To determine significance, the change in traffic conditions attributable to the proposed project must be measured against the following threshold.

- The V/C ratio increases by more than 0.01 at a signalized intersection operating at LOS E or LOS F.

The following table analyzes the change attributed to the proposed project and determines whether that change would be significant.

Table 3-39. Opening Year (2018) Plus Project Intersection Impacts for Cabot Road/Crown Valley Parkway

Intersection	Peak Hour	Opening Year (2018)		Opening Year (2018) Plus Project		Change	Significant Impact?
		V/C (Delay)	LOS	V/C (Delay)	LOS		
Cabot Road/Crown Valley Parkway	AM	0.828	D	0.831	D	0.003	No
	PM	0.939	E	0.943	E	0.004	No

Source: Appendix J

V/C = volume to capacity ratio

LOS = level of service

Because the change in the V/C ratio would be less than 0.01 or 1%, the additional traffic with the project would be less than significant.

In 2035, the General Plan Buildout Year, the TIA assumes the interchange improvements at Avery Parkway have been installed and the traffic model has accounted for planned General Plan growth. As shown in the following table, the only intersection to exceed the thresholds of significance would be Cabot Road at Crown Valley Parkway.

Table 3-40. Intersection Level of Service General Plan Buildout (2035) No Project Conditions

Intersection	AM Peak		PM Peak	
	V/C ¹ (Delay ²)	LOS	V/C ¹ (Delay ²)	LOS
Cabot Road/Crown Valley Parkway	0.852	D	0.968	E
Camino Capistrano/Paseo de la Colinas	0.608	B	0.617	B
Cabot Road/Paseo de la Colinas	0.634	B	0.667	B
Star Drive/Paseo de la Colinas	0.398	A	0.369	A
Camino Capistrano/Avery Parkway	0.551	A	0.581	A
I-5 Southbound Ramps/Avery Parkway	0.461 (20.7)	A (C)	0.444 (17.1)	A (B)
I-5 Northbound Ramps/Avery Parkway	0.445 (15.9)	A (B)	0.402 (12.9)	A (B)

Source: Appendix J.

¹ - V/C (volume to capacity ratio) for signalized intersections is based on application of the Intersection Capacity Utilization methodology using Traffix 7.9 software.

² - Delay is average intersection delay (seconds) based on application of the Highway Capacity Manual 2010 methodology using Synchro 8 Build 806 software. Delay is reported for intersections under the jurisdiction of Caltrans for informational purposes only.

V/C and level of service (LOS) below the acceptable threshold are shown in bold.

Table 3-41. Intersection Level of Service General Plan Buildout (2035) With Project Conditions

Intersection	AM Peak		PM Peak	
	V/C ¹ (Delay ²)	LOS	V/C ¹ (Delay ²)	LOS
Cabot Road/Crown Valley Parkway	0.856	D	0.971	E
Camino Capistrano/Paseo de la Colinas	0.627	B	0.632	B
Cabot Road/Paseo de la Colinas	0.640	B	0.668	B
Star Drive/Paseo de la Colinas	0.416	A	0.380	A
Camino Capistrano/Avery Parkway	0.559	A	0.594	A
I-5 Southbound Ramps/Avery Parkway	0.464 (20.6)	A (C)	0.446 (17.0)	A (B)
I-5 Northbound Ramps/Avery Parkway	0.446 (16.0)	A (B)	0.408 (13.2)	A (B)

Source: Appendix J.

¹ - V/C (volume to capacity ratio) for signalized intersections is based on application of the Intersection Capacity Utilization methodology using Traffix 7.9 software.

² - Delay is average intersection delay (seconds) based on application of the Highway Capacity Manual 2010 methodology using Synchro 8 Build 806 software. Delay is reported for intersections under the jurisdiction of Caltrans for informational purposes only.

V/C and level of service (LOS) below the acceptable threshold are shown in bold.

To determine whether a significant impact would occur at this intersection, the change in V/C ratio has been calculated as shown in Table 3-42.

Table 3-42. General Plan Buildout (2035) Plus Project Intersection Impacts for Cabot Road/Crown Valley Parkway

Intersection	Peak Hour	Opening Year (2035)		Opening Year (2035) Plus Project		Change	Significant Impact?
		V/C (Delay)	LOS	V/C (Delay)	LOS		
Cabot Road/Crown Valley Parkway	AM	0.852	D	0.856	D	0.004	No
	PM	0.968	E	0.971	E	0.003	No

Source: Appendix J

V/C = volume to capacity ratio

LOS = level of service

Because the change in V/C ratio would be less than 0.01, or 1%, the project would not contribute a significant impact.

- b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

No Impact. OCTA is the Congestion Management Agency responsible for the creation and implementation of the Orange County CMP, which was last updated in 2013. The CMP establishes a Highway System, which includes a series of intersections and highways throughout Orange County, also known as OCTA’s Smart Street network, and establishes minimum performance thresholds for these CMP facilities. The nearest OCTA CMP intersection and facility is at Street of the Golden Lantern and Crown Valley Parkway, about 0.7 mile west of the project site. Projects must

demonstrate consistency with OCTA's performance thresholds on the Highway System if the proposed project is estimated to either generate 2,400 or more average daily trips or contribute 1,600 or more average daily trips directly onto the Highway System.

As shown above under XVI.a, a total of 676 average daily trips are estimated to occur during project operations, which is lower than the minimum CMP threshold of 2,400 average daily trips. Additionally, traffic dispersion onto the surrounding roadway network is estimated to contribute the following.

- 65% of trips coming from/going to the north
 - 40% accessing I-5
 - 25% accessing SR-73
- 20% of trips coming from/going to the south using I-5
- 10% of trips coming from/going to the east using Avery Parkway
- 5% of trips coming from/going to the west using Paseo de la Colinas

As such, the proposed project would not trigger a CMP analysis, and no impact would occur.

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

No Impact. John Wayne Airport is about 14 miles to the northwest of the project site, Camp Pendleton Airport is more than 25 miles to the southeast, and Fullerton Municipal Airport is approximately 28 miles to the north. The proposed project is not within an Airport Impact Zones or Airport Environs Land Use Plans for an airport. Furthermore, the proposed project involves the development of single-family residences, which would not extend into airspace or be tall enough to result in a change in air traffic patterns or a change in location. Therefore, the proposed project would not result in a change in air traffic patterns or otherwise result in a safety risk, and impacts would not occur.

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

No Impact. This evaluation involves determining if any project-related features would change the circulation system, resulting in physical impacts on automobile traffic or pedestrians. The proposed project includes an entry gate on Avenida del Caballo at the project entry. The gate is designed with a turn-around that meets minimum turning radius standards for trucks that are not granted access to the community or are in the wrong location. Because the entry to the property on Avenida del Caballo would be hundreds of feet from an intersection or adjoining street, there is no risk of queuing behind the gate interrupting circulation patterns. Furthermore, the width of the gates would meet Fire Department standards and the gates would be equipped with approved override mechanisms for both OCSD and OCFA. No other hazardous conditions have been identified and no impacts would occur.

e. *Result in inadequate emergency access?*

Less-than-Significant Impact. Emergency access to the site would be from the gated entry at Avenida del Caballo, which off the project site measures 36 feet curb-to-curb within 46 feet of right-of-way. Once on site, Avenida del Caballo retains its 36-foot width. In-tract streets vary between 28

feet for parking on one side to 36 feet for parking on both sides. Internal motor courts measure 24 feet wide. The proposed project is consistent with Section 9-1-271 of the LNZC, which requires private streets serving five parcels or more to provide a minimum pavement width of 28 feet. The motor courts are not considered streets and not subject to this code provision. Furthermore, each structure would meet the requirement that fire hoses of 150 feet long can reach all parts of the structure. Because emergency vehicles can easily access and travel within the site, impacts related to emergency access on the project site would be less than significant.

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

No Impact. The LNGP Circulation Element includes goals and policies for transit, bicycle, and pedestrian facilities and includes adopted policies to increase the use of public transportation and to improve access between residential, employment, and commercial areas. The policies are primarily focused on City efforts to provide public transit within areas of major development and to generally encourage an increase in public transportation ridership. OCTA provides transit services and bus stops within the immediate vicinity of the project site. OCTA Bus Route 90 is within 0.5 mile of the project site. The proximity of the project site to four bus routes within 0.5 mile would allow residents convenient access to alternative transportation. OCTA also offers the OCTA ACCESS program and other training programs to assist eligible transit users in learning how to navigate the standard transit system. The proposed project would not alter or conflict with existing bus stops and schedules, and impacts related to OCTA transit services would not occur. Additionally, the Laguna Niguel Metrolink Station is located just east, approximately 0.7 mile from the project site. Furthermore, none of the proposed project actions would conflict with any of the goals or policies of the City's Circulation Element, and impacts would not occur.

The nearest bicycle facilities are located along Crown Valley Parkway, Camino Capistrano, Cabot Road, and Paseo de la Colinas and are Class II designated bike lanes. The proposed project would not include any bicycle improvements within the study area, involve any off-site improvements, or result in any identified off-site impacts on bicycle or pedestrian routes. Therefore, no conflicts would occur with any bicycle facilities. Lastly, the existing pedestrian network would be maintained upon implementation of the proposed project. As a result, the proposed project would not conflict with any adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities and would not decrease the performance or safety of any facilities. No impact would occur.

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

Environmental Setting

The project site encompasses 19.5 acres of hillside property that is currently vacant but was previously recorded as a residential tract in the 1960s. The site was mass graded to establish streets, utility infrastructure, and building pads for future homes. The site also includes existing underground and above-ground utilities, including an active MNWD pump station, water mainlines, gas, electric, telephone, fire hydrants, electric transformers, and light standards. Following the installation of infrastructure, the proposed project site was determined to be undevelopable until the underlying landslide material is properly remediated, precluding buildout of the site. No homes were ever constructed on the project site.

Water

MNWD is a member agency of the Municipal Water District of Orange County (MWDOC), wholesale importer, and a member agency of the Metropolitan Water District of Southern California (MWD). As such, MWDOC is entitled to receive water from the available sources of MWD, and MNWD receives supplies through MWDOC. MNWD provides water to over 172,000 customers throughout a 36.5-square-mile service area, with its main source of water imported from MWDOC. Another source of water is recycled water developed at local treatment facilities. According to MNWD's 2010 Urban Water Management Plan, the total water demand for retail customers served by MNWD is approximately 33,846 acre-feet per year consisting of 26,726 acre-feet (79%) of potable water and 7,120 acre-feet (21%) of recycled water (Malcolm Pirnie, Inc. 2011).

MWD utilizes multiple planning strategies, programs, and reports to identify and plan for uncertainties in climate change, environmental conflicts, and economic trends and to continue to provide long-term water supply reliability. Some of these include a Water Surplus and Drought Management Plan, which guides water surplus and shortage management in an equitable and efficient manner, and a Long Term Conservation Plan to inform decisions on investment and communication strategies for reducing regional water demands (MWD 2015). MWD's 2010 Regional Urban Water Management Plan reported that it could meet full service demands of its member agencies with existing supplies from 2015 through 2035 during normal years, single dry years, and multiple dry years. MNWD therefore determined it was capable of meeting the water demands of its customers in normal, single dry, and multiple dry years between 2015 and 2035 (Malcolm Pirnie, Inc. 2011). In addition, MWD is currently updating its Integrated Water Resources Plan for long-term water supply reliability in Southern California. The updated plan will address how MWD plans to balance the use of local resources and conservation with imported supplies to meet future needs. Table 3-43 shows past and projected water demand within MNWD from 2005 to 2035.

Table 3-43. Past and Projected Water Demand 2005 through 2035 (acre-feet per year)

Water Sector	Use	2005 Actual Demand	2010 Actual Demand	2015 Projected Demand	2020 Projected Demand	2025 Projected Demand	2030 Projected Demand	2035 Projected Demand
Single-Family		19,648	17,589	21,100	19,748	20,008	20,268	20,527
Multi-Family		2,838	2,600	3,118	2,919	2,957	2,995	3,034
CII		3,020	2,678	3,212	3,006	3,046	3,085	3,125
Landscape		10,901	10,980	13,710	12,327	12,489	12,652	12,814
Total		36,407	33,846	40,600	38,000	38,500	39,000	39,500

Source: Malcolm Pirnie, Inc. 2011.

CII = Commercial/Industrial/Institutional

As mentioned above, according to MNWD's 2010 Urban Water Management Plan, it is capable of meeting all water demands in normal, single, and multiple dry years from 2015 through 2035 (Malcolm Pirnie, Inc. 2011). Even during the current drought, MNWD is actively working to address water supply challenges and has implemented a number of initiatives. One of these initiatives includes implementing the Water Shortage Contingency Plan. The Water Shortage Contingency Plan is required by state law and uses a five-stage phased approach to easing customers into increased levels of water conservation based on the availability of water supplies. MNWD's Board of Directors

evaluates the severity of supply shortages and has the authority to vote to increase water use reductions to preserve water supplies. The MNWD Board of Directors voted to implement Stage 1 of the plan on May 1, 2015 and voted to implement Stage 2 on July 1, 2015. During Stage 1, MNWD asked customers to voluntarily reduce water use and encouraged everyone to remain within their allocated water budget. During Stage 2, MNWD has required customers to stay within their calculated water budget or pay fines for excess water usage. If the drought continues and increased stages must be implemented, the next stage would be Stage 3, where MNWD will decrease the amount of water customers are allowed to use for outdoor uses by 40%. Stage 4 would reduce outdoor water budgets by 70%, and Stage 5 would reduce outdoor water budgets by 100%. MNWD has also invested in infrastructure to increase the amount of recycled water produced and emergency supply storages. Other programs MNWD has implemented are voluntary and include turf removal rebates, home water surveys, and sprinkler adjustments (MNWD 2015a, 2015b). Through these initiatives and programs, MNWD has been able to stay on top of water supply challenges as a result of the current drought.

As described above, the site is currently vacant and does not generate a demand for water. However, MNWD water mainlines and a pump station were constructed at the site as a result of the previous entitlement.

Wastewater

MNWD is also the wastewater service provider for the project site. MNWD collects wastewater through a network of gravity lines, lift stations, and force mains throughout its service area and sends it to the South Orange County Wastewater Authority (SOCWA) plants for treatment and disposal. SOCWA is a Joint Powers Authority that collects, treats, and disposes of wastewater and sludge for select member agencies in southern Orange County (Malcolm Pirnie, Inc. 2011). The organization operates four wastewater treatment facilities, two ocean outfalls, and a treated effluent pipeline as follows.

- J. B. Latham Treatment Plant
- Regional Treatment Plant
- Coastal Treatment Plant
- 3A Plant
- Aliso Creek Ocean Outfall
- San Juan Creek Ocean Outfall
- Effluent Transmission Main

According to MNWD's 2010 Urban Water Management Plan, the average daily flow to the SOCWA J.B. Latham Treatment Plant is approximately 8.5 million gallons per day (MGD) with a design capacity of 13 MGD. The Regional Treatment Plant has a capacity of 12 MGD and with an average daily flow of approximately 10 MGD. The Coastal Treatment Plant has a design capacity of 6.7 MGD with an average daily flow of 3.3 MGD, and Plant 3A has a design capacity of 8 MGD with an average daily flow of 4 MGD (Malcolm Pirnie, Inc. 2011; SOCWA 2011). The SOCWA plants use a conventional activated sludge process that treats wastewater to secondary treatment standards, which is then disposed of through ocean outfalls that discharge off the coasts of Dana Point and Laguna Beach. MNWD owns 22.7 MGD of secondary treatment capacity among the SOCWA treatment plants (Malcolm Pirnie, Inc. 2011).

In addition, approximately 30% of wastewater collected and treated at SOCWA facilities is reused for recycled water purposes. Recycled water in the MNWD is used for landscape irrigation and makes up approximately 21% of MNWD's water supply. With implementation of MNWD's plans for expansion of recycled water distribution facilities, recycled water will increase to approximately 23% of the water supply by 2035.

As mentioned above, the site is currently vacant and does not generate a demand for wastewater. However, MNWD sewer lines were constructed at the site as a result of the previous entitlement.

Solid Waste

The Orange County Integrated Waste Management Department owns and operates three public landfills in Orange County that accept municipal solid waste. These include Frank R. Bowerman Landfill in Irvine, which accepts commercial waste only; the Olinda Alpha Landfill in Brea, which accepts both public and commercial waste; and the Prima Deshecha Landfill in San Juan Capistrano, which also accepts both public and commercial waste. All three landfills are Class III and only accept non-hazardous municipal waste. Table 3-44 provides an overview of each landfill with its current permitted capacity and remaining capacity. As mentioned above, the project site is vacant and does not generate solid waste.

Table 3-44. Existing Landfill Conditions

Landfill	Size (acres)	Operating Years	Permitted Daily Capacity (tons/day)	Maximum Permitted Capacity (Cubic Yards)	Remaining Capacity (Cubic Yards)	Remaining Capacity (%)
Frank R. Bowerman	725	1990–2053	11,500	266,000,000	205,000,000	77%
Olinda Alpha	565	1960–2021	8,000	148,800,000	36,589,707	25%
Prima Deshecha	1,530	1976–2067	4,000	172,900,000	87,384,799	50%

Source: CalRecycle 2015a, 2015b, 2015c.

Electricity and Natural Gas

The project site is within the service boundary of San Diego Gas and Electric (SDG&E), which provides energy services to 3.4 million customers through 1.4 million electric meters and 870,000 natural gas meters in a service area spanning 4,100 square miles in San Diego and southern Orange counties. Although the project site is vacant and there are no demands for electricity and natural gas, infrastructure for these facilities has been constructed at the site as a result of the previous entitlement.

Methodology

Based on generation rates using CalEEMod, Table 3-45 outlines the estimated utility demands of the proposed project.

Table 3-45. Estimated Utility Demands for the Proposed Project

Unit Type	# of Units	Water (mgy)	Wastewater (mgy)	Solid Waste (tons/year)	Electricity (MWh/year)	Natural Gas (kBTU/year)
Single-Family Residential	71	7.54	4.63	83.23	503.37	2,050,730

Source. SCAQMD 2013.

mgy = million gallons per year

MWh/year = megawatts per hour per year

kBTU = thousand British thermal unit

Impact Analysis

Would the project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less-than-Significant Impact. The proposed project would involve the construction of 71 single-family residential units, which would accommodate up to 185 residents. Therefore, the proposed project would generate an increased demand for wastewater treatment in the City. During project operations, all wastewater would be discharged to MNWD facilities and treated at one of the four SOCWA treatment plants, which, as described above, are all operating below capacity.

During construction, the project would not exceed the wastewater treatment requirements of the San Diego Water Board and would comply with all provisions of the NPDES program and applicable wastewater discharge requirements issued by SWRCB as discussed in Section VIII, *Hydrology and Water Quality*. The proposed project would be required to comply with the NPDES permit for nonpoint source discharges to surface waters of the state. For nonpoint source discharges, Phase I of the NPDES program establishes a comprehensive program to manage urban runoff and minimize pollution of the environment for all areas of ground disturbance associated with construction activities that exceed 1 acre. The proposed project would be required to apply for a Phase I permit, and would be required to comply with all applicable wastewater discharge requirements issued by SWRCB and San Diego Water Board. Therefore, implementation of the proposed project would not exceed applicable wastewater treatment requirements of the San Diego Water Board, and impacts would be less than significant.

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

Less-than-Significant Impact. The proposed project would involve the construction of up to 71 single-family residential units, which would increase water use on site by 7.54 million gallons per year. Therefore, the proposed project would generate an increased demand for water supplies at the project site. However, no new or expanded water treatment facilities would be required.

MNWD anticipates being able to meet projected water supply demands through 2035, has taken an integrated approach to developing a diversity of supply sources, and has implemented various programs and initiatives to achieve a reliable water supply even during drought conditions. Additionally, according to MNWD's September 2014 Conditional Will Serve Letter (Appendix K),

MNWD would have adequate domestic water supplies to furnish the proposed project, subject to the developer providing the following.

- Final approval of improvement plans and precise grading plans
- Final approval of irrigation plans and slope stabilization plans
- Submittal of title report for all properties
- Payment of connection fees, plan check-inspection fees
- OCFA approval
- Removal of existing water and sewer lines
- Relocation of existing pump station/pressure reducing station

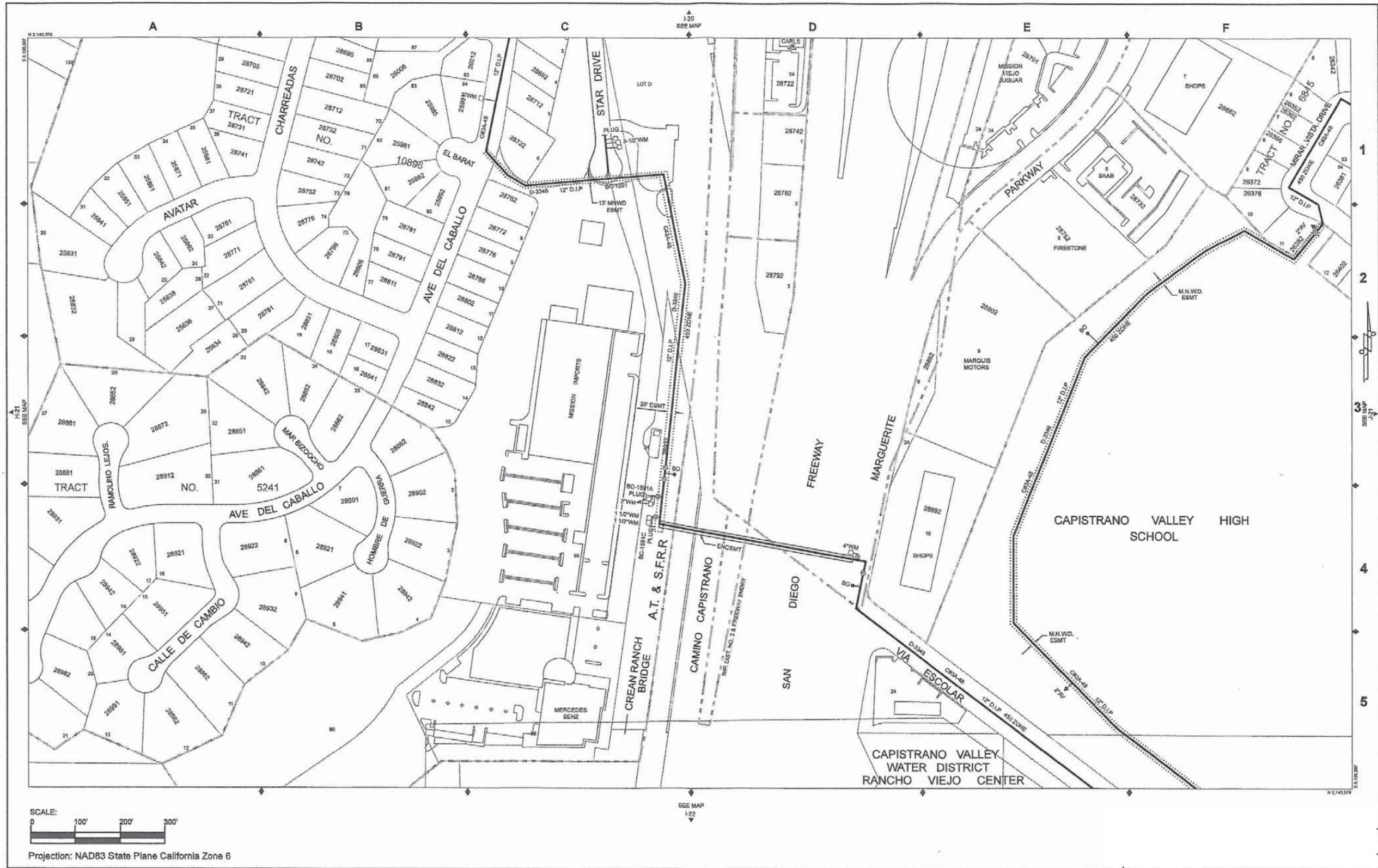
Therefore, because future water facilities would accommodate the project and MNWD has issued a Conditional Will Serve Letter, implementation of the proposed project would not require or result in the construction of new or expanded water facilities, the construction of which could cause significant environmental effects.

Furthermore, MNWD distributes reclaimed water throughout Laguna Niguel, and a point of connection to reclaimed facilities is approximately a quarter mile away along Avenida del Caballo. The applicant would provide an extension of the reclaimed line to the project site, which would be used for landscape irrigation of common spaces and parks. Figure 3-19 depicts the alignment of the extension of the reclaimed facilities to the project site. Reliance on reclaimed water for landscape purposes reduces the demand for potable water.

As described above, MNWD owns 22.7 MGD of secondary treatment capacity among the four SOCWA treatment plants, which are all operating below capacity. According to MNWD's September 2014 Conditional Will Serve Letter (Appendix K), MNWD would be able to provide sewer service to the proposed project dependent upon the developer providing the conditions listed above. Therefore, because adequate capacity exists at MNWD and SOCWA facilities to accommodate the demand of the proposed project and MNWD has issued a Conditional Will Serve Letter, implementation of the proposed project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities that would cause significant environmental effects. Impacts would be less than significant.

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

Less-than-Significant Impact. As discussed in Section IX, *Hydrology and Water Quality*, stormwater from the project site would be captured in an underground vault prior to discharge into the existing storm drain system. The underground vault would detain storm flows such that peak discharge during the 100-year storm would be less during the developed condition compared to the existing condition. Therefore, the proposed project does not require the construction of new stormwater drainage facilities or expansion of existing facilities to be able to accommodate future storm flows, and impacts would be less than significant.



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Figure 3-19
Reclaimed Water
SunPoint Residential Project

d. *Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?*

Less-than-Significant Impact. The proposed project would involve the construction of up to 71 single-family residential units, which would increase water use on site by 7.54 million gallons per year. Therefore, the proposed project would generate an increased demand for water supplies at the project site.

As discussed above, MNWD anticipates being able to meet projected water supply demands through 2035 and has taken an integrated approach to developing a diversity of supply sources to achieve a reliable and economical water supply system during the current drought conditions. Additionally, according to MNWD's September 2014 Conditional Will Serve Letter (Appendix K), MNWD would have adequate domestic water supplies to furnish the proposed project dependent upon the developer providing the conditions listed above under XVII.b above. Therefore, because future water supply demands are projected to be adequately accommodated and MNWD has issued a Conditional Will Serve Letter, implementation of the proposed project would not result in significant environmental effects due to expanded entitlements. Impacts would be less than significant.

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

Less-than-Significant Impact. As described under XVII.a and XVII.b, implementation of the proposed project would increase discharge of wastewater by 4.63 million gallons per year, which would be newly conveyed through the proposed on-site collection system. However, the increased amount of discharge would not exceed the capacity of the existing wastewater treatment system in combination with the provider's existing service commitments.

MNWD owns 22.7 MGD of secondary treatment capacity among the four SOCWA treatment plants, which are all operating below capacity. According to MNWD's September 2014 Conditional Will Serve Letter (Appendix K), MNWD would be able to provide sewer service to the proposed project dependent upon the conditions listed above under XVII.b above. Therefore, because adequate capacity exists at MNWD and SOCWA to accommodate the demand of the proposed project and MNWD has issued a Conditional Will Serve Letter, implementation of the proposed project would not exceed the capacity of MNWD treatment facilities. Impacts would be less than significant.

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

Less-than-Significant Impact. The proposed project would result in an increase of 83.23 tons of solid waste per year. As shown in Table 3-44 above, two of the three landfills in Orange County have at least 50% or more of remaining capacity, with the Olinda Alpha landfill operating at 75% of its capacity. The three landfills are expected to be able to accommodate the increase in solid waste generated by construction and operation of the project. Impacts would be less than significant.

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

No Impact. AB 939 mandates the reduction of solid waste disposal in landfills. The bill mandates a minimum 50% diversion goal and also requires cities and counties to prepare Source Reduction Recycling Elements in their General Plans. As stated on the City's Public Works webpage, the City's average diversion rate is 40%, and it remains committed to waste reduction and minimization

efforts (City of Laguna Niguel 2015). The proposed project would be implemented in a manner consistent with the City's commitment and in compliance with AB 939. Additionally, Policies 3.1 and 3.3 of the LNGP Public Facilities Element require that the City continue to reduce the solid waste stream. Furthermore, the proposed project would be subject to and comply with the conditions of Title 6 of the City of Laguna Niguel Municipal Code, which regulates solid waste disposal practices. Therefore, the proposed project would not conflict with federal, state, and local statutes and regulations related to solid waste, and no impact would occur.

h. Result in the inefficient and unnecessary consumption of energy?

Less-than-Significant Impact. The proposed project would involve the construction of up to 71 single-family residential units, which would accommodate up to 185 residents. Therefore, the proposed project would generate an increased demand for electricity and natural gas at the project site. The total annual electrical and natural gas consumption of the proposed project is estimated to be 503.37 megawatt-hours and 2,050,730 thousand British thermal units per year, respectively. However, no new or expanded distribution facilities would be required as a result of the proposed project. Existing infrastructure already stubs into the project site, and the installation of energy facilities would be related specifically to on-site distribution. The increase in the number of residents generated by the proposed project represents a small percentage of the total population growth provided in the LNGP and regional planning documents such as the Air Quality Management Plan. Therefore, the growth would not substantially alter energy demand.

The proposed project would be required to comply with the energy conservation measures contained in Title 24, which would reduce the amount of energy needed for operation of the proposed project. The proposed project would also incorporate the following energy-efficient features that would minimize energy consumption.

- Installation of drought-tolerate plant material from approved material lists of the City, MNWD, and OCFA
- Installation of a reclaimed irrigation system for common area slopes
- Relocation and installation of new MNWD water facilities including booster pumps and pressure reducer valves that would benefit off-site facility improvements
- Provision of recycle containers as a part of the weekly trash pickup
- Provision of energy-efficient lighting, plumbing, HVAC, appliances, windows, doors, and insulation

A conditional will serve letter was issued in by SDG&E in July 2014 (Appendix L) for the project. Therefore, although the proposed project would result in increased electrical and natural gas demands, adequate supply of electricity and natural gas would be available to support the project, and no impact would occur.

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

Impact Analysis

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

Less-than-Significant Impact with Mitigation Incorporated. As discussed in Section IV, *Biological Resources*, existing site conditions include streets and cul-de-sacs adjoined by undeveloped, previously graded lots and terraced slopes. The existing streets are paved and lined with concrete curbs and gutters. Traditional residential street lights are present along the street edges. Graded undeveloped flat terraces ascend from east to west. The majority of the site (areas not associated with the existing streets) consists of a mix of bare ground and nonnative herbaceous (ruderal) vegetation associated with disturbed conditions. The proposed project has the potential to affect the coastal California gnatcatcher (federally listed as threatened, CDFW SSC), coastal sage scrub, Mexican fan palms, pepper trees, Aleppo pines, and native birds, including nesting birds. However, **Mitigation Measure MM BIO-1** would reduce any potentially significant impacts on candidate, sensitive, or special-status species protected by CDFW or USFWS or in local or regional plans, policies, or regulations to less-than-significant levels.

As discussed in Section V, *Cultural Resources*, the proposed project would not eliminate important examples of the major periods of California history or prehistory. The proposed project would

incorporate **Mitigation Measures MM CUL-1** and **MM CUL-2** to reduce potential impacts related to the proposed project in the event that archaeological or paleontological resources are identified during ground-disturbing activities. Therefore, impacts would be less than significant with the incorporation of mitigation measures.

Implementation of the proposed project would not result in substantial degradation of the quality of the environment, and potential impacts associated with construction of the proposed project would not substantially affect the habitat of a wildlife species, cause a species to drop below self-sustaining levels, threaten to eliminate a plant or animal community, affect a rare or endangered species, or eliminate important examples of the major periods of California history or prehistory.

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

Less-than-Significant Impact with Mitigation Incorporated. A cumulative impact could occur if the project would result in an incrementally considerable contribution to a significant cumulative impact identified from past, present, and reasonably foreseeable future projects for each resource area. Past projects have occurred and represent the existing condition. Present projects are currently under construction. Future projects have development applications in process or approved, but no physical construction has yet occurred.

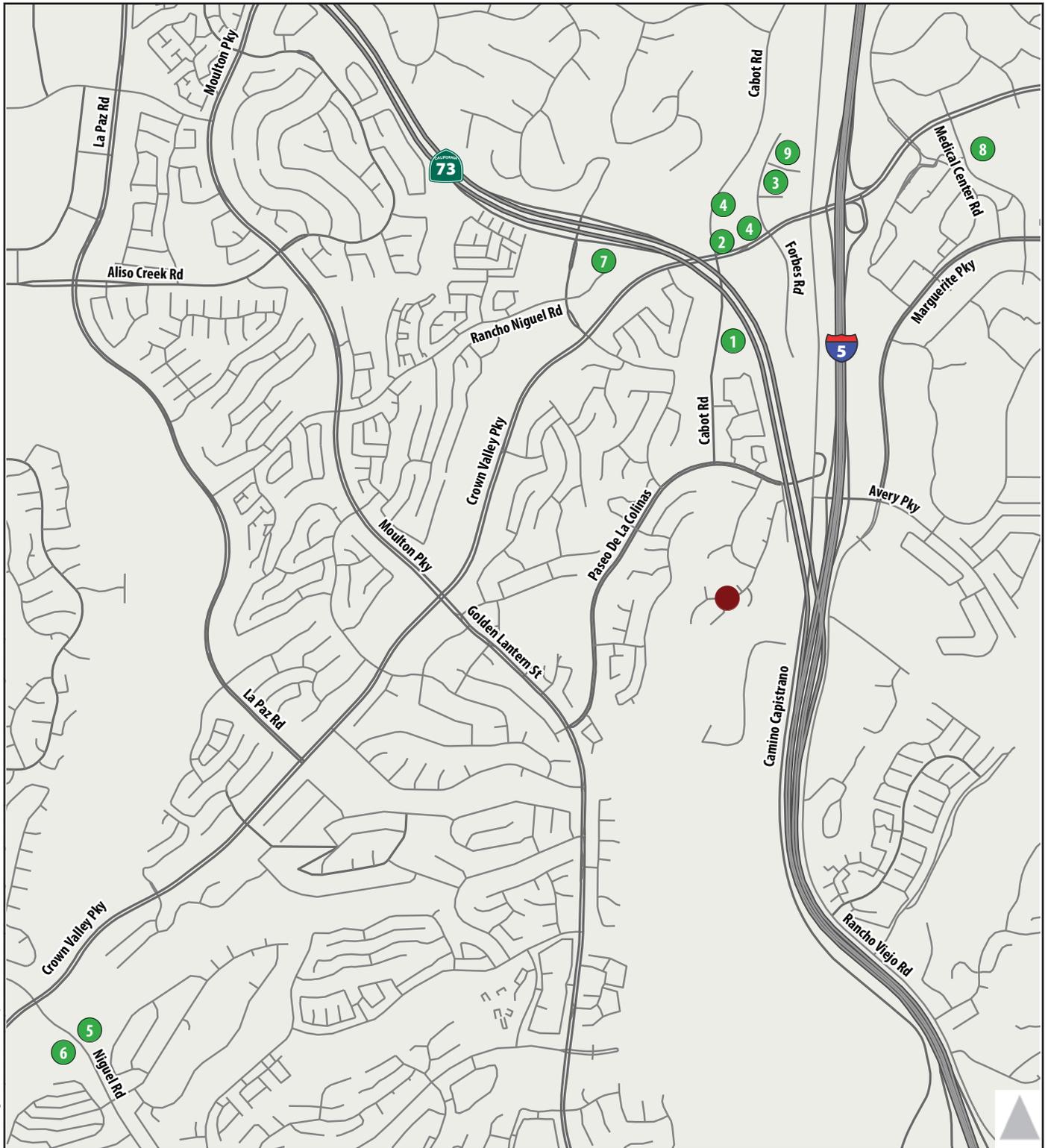
In all, nine present and future projects are located within the City of Laguna Niguel. Table 3-46 lists each project and provides a description, location, and status update. Figure 3-20 shows the cumulative project locations.

Table 3-46. SunPointe Residential Project: Pending Cumulative Projects List

Project	Description
City of Laguna Niguel	
1. Forbes Road Apartments	Apartments and Retail
2. Skye Apartments	Apartments
3. Apex Apartments	Apartments
4. Broadstone Apartments	Apartments and Retail
5. Picerne Apartments	Apartments
6. Laguna Summit Apartments	Apartments
7. Crestavilla Retirement and Assisted Living Community	Senior Housing/Assisting Living/Congregate Care
8. Starbucks	Coffee shop with drive-through/retail food sales/ restaurant
9. Mission Viejo Medical Center Project	Medical Office Building

As discussed in Sections I through XVII, the proposed project would not result in any unavoidable significant impacts. Resource areas where the proposed project could potentially contribute to cumulative impacts include aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hydrology and water quality, land use and planning, noise,

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- | | | | |
|--------------------------------|---|---|---|
| 1 Skye Apartments | 4 Picerne Apartments | 7 Starbucks |  Proposed SunPointe Project Site |
| 2 Apex Apartments | 5 Laguna Summit Apartments | 8 Mission Viejo Medical Center Project | |
| 3 Broadstone Apartments | 6 Crestavilla Retirement and Assisted Living Community | 9 Forbes Road Apartments | |



Figure 3-20
Local Pending and Approved Projects
SunPointe Residential Project

population and housing, public services, recreation, transportation, and utilities and service systems.

Aesthetics

As described in Section I, *Aesthetics*, the proposed project's aesthetics impacts would be limited because the project site is surrounded by development (e.g., commercial facilities, schools, and other residential developments) and hillside topography. There are also no scenic vistas or highways nearby that would be visible. Existing site aesthetics would improve with the project and new lighting would be consistent with the standards, helping to prevent excessive nighttime lighting; proposed materials used for typical Southern California home construction (stucco, wood, tiled roofing) would minimize daytime glare. None of the project's impacts on aesthetics would be cumulatively considerable when combined with those of the cumulative projects listed in Table 3-46. Impacts would be less than significant, and no mitigation is necessary.

Air Quality

The Basin, the geographic region where the proposed project is located, is currently in nonattainment for O₃ and PM_{2.5} under the NAAQS and for O₃, PM₁₀, and PM_{2.5} under the CAAQS. This is the result of past and present projects and will be further impeded by reasonably foreseeable future projects. SCAQMD has developed thresholds to ensure attainment of the NAAQS and CAAQS; therefore, exceedance of SCAQMD regional threshold levels is considered a significant cumulative impact and adverse cumulative consequence. As discussed above under III.b, criteria pollutant emissions would not exceed any pollutants' regional threshold during construction and operation of the proposed project. Therefore, because the proposed project would not exceed the thresholds for a nonattainment pollutant (in this case, ozone precursors [ROC and NO_x], PM₁₀, and PM_{2.5}), the proposed project would not result in a net increase in pollutants (including ozone precursors) that would be cumulatively considerable. This impact would be less than significant.

Biological Resources

As described in Section IV, *Biological Resources*, the proposed project's biological resources impacts would be limited to the construction phase and would be associated with the removal of low-quality ruderal and California buckwheat scrub habitat, which could have coastal California gnatcatcher present. However, USFWS protocol surveys to determine presence or absence of coastal California gnatcatcher yielded no detections of the species on or adjacent to the project site. Based on the negative survey results, the proposed project would not result in impacts on this species and no mitigation is required. Additionally, removal of any eucalyptus trees from the site would require a tree cutting permit from the City if conducted during the restricted period. Although past, present, and future projects such as those in Table 3-46 will continue to reduce the available biological resources in the cumulative project study area, which is considered cumulatively significant, the project's contribution to this loss is less than cumulatively considerable because the on-site biological resources are of low quality and any associated impacts would be fully mitigated through implementation of **Mitigation Measure MM BIO-1**. Therefore, the project's incremental contribution to cumulative biological resource impacts would not be cumulatively considerable.

Cultural Resources

As described in Section V, *Cultural Resources*, the proposed project's cultural resources impacts would be limited to the construction phase, when ground disturbance would occur. As described in

Section V, the possibility of encountering human remains would be remote due to the lack of any evidence that prehistoric or historic-period human remains are present on site because of the extensive disturbance that has occurred. However, the proposed project may require grading in native soil to accomplish its proposed geotechnical remediation and any ground-disturbing activities would require mitigation to ensure that a significant archaeological impact would not occur. Additionally, there is a high potential for paleontological resources to be on site and any ground-disturbing activities would require mitigation to ensure that a significant paleontological impact would not occur. **Mitigation Measures MM CUL-1 and MM CUL-2** provide specific monitoring and stop-work requirements to ensure that any archaeological and paleontological resources are recovered. Although past, present, and future projects such as those in Table 3-46 have the potential to encounter cultural resources in the cumulative project study area, and combined there is a potential cumulatively significant impact, the project's contribution to any loss of cultural resources would be less than cumulatively considerable because any archaeological and paleontological resources encountered would be recovered. Therefore, the project's incremental contribution to cumulative cultural resources impacts would not be cumulatively considerable.

Geology and Soils

Development in a seismically active region can put people and structures at risk from a wide range of earthquake-related effects. The existing level of seismic risk exposure represents a significant cumulative impact. However, various mechanisms are in place to reduce risks at the project level, including project-specific hazards evaluation processes mandated by the Seismic Hazards Mapping Act, as well as the seismic design standards promulgated by the 2013 CBC (CCR Title 24). Although there would be some residual level of risk because seismic hazards cannot be entirely avoided, the proposed project would not contribute considerably to the existing cumulative impact related to seismic hazards.

Greenhouse Gas Emissions

At the local level, the project would comply with the requirements of the CalGreen building code and water-saving restrictions, including drought-tolerant landscaping. The project would also comply with AB 939 to reduce waste, all of which would contribute to reducing GHG emissions.

The proposed project would not exceed SCAQMD's contemplated, though not adopted, threshold of 3,000 MT CO₂e for GHG and, as such, would not have a significant impact on GHG emissions. Given the lack of significant GHG emissions at the project level and the requirements to comply with federal, state, and local regulations, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, including AB 32 and the Climate Change Scoping Plan. Therefore, project GHG emissions are not considered cumulatively considerable. This impact would be less than significant.

Hydrology and Water Quality

As described in Section IX, *Hydrology and Water Quality*, the proposed project's hydrology and water quality impacts could occur during both the construction and operational phases. Construction of the proposed project would disturb more than 1 acre and, therefore, would be required to prepare and implement a SWPPP, in accordance with the Construction General Permit. The SWPPP would list BMPs that would be implemented to protect stormwater runoff and would include monitoring of BMP effectiveness. At a minimum, BMPs would include practices to minimize the contact of

construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with stormwater.

Additionally, geotechnical remediation of the site consists of dewatering activities and the discharge of groundwater, which could cause a potentially significant water quality impact. However, impacts would be reduced to less-than-significant levels with implementation of **Mitigation Measure MM HYD-1**, which requires the Applicant to obtain either a groundwater discharge permit issued by the Regional Water Quality Control Board authorizing discharge of groundwater into the storm drain system, or authorization from the Moulton Niguel Water District to discharge groundwater into the sewer system.

During operation, biofiltration BMP treatment methods would provide on-site treatment of stormwater runoff. These treatment features consist of shallow landscaped depressions to which runoff is directed that use woody and herbaceous plants to mimic pollutant removal mechanisms that operate in forested ecosystems. Studies have demonstrated that, if maintained, biofiltration BMP systems exhibit high removal rates (greater than 90%) for pollutants such as nutrients, metals, bacteria, and total suspended solids.

Moreover, the site is not within a FEMA-designated 100-year flood hazard area. The site is in an area of minimal flood hazard and would not contribute to flooding or place people in harm from flooding. Past, present, and future projects in the cumulative project study area will be required to implement BMPs and avoid flood areas (or engineer outside of the flood area). Combined, cumulative impacts from past, present, and future projects would be less than cumulatively significant. Therefore, because water quality would not be adversely affected by the proposed project, the proposed project's contribution to cumulative hydrology and water quality impacts would not be cumulatively considerable.

Land Use and Planning

As described in Section X, *Land Use and Planning*, the proposed project includes several plan amendments, such as a General Plan Amendment to increase the allowable density from 35 to 71 single-family residential units in the Community Profile Area 3 and Colinas de Capistrano subarea and a Zone Change to modify the current RS-3 designation to RP to allow for implementation of medium-density planned unit developments with attached homes, detached homes, or a mixture of both on the project site.

The project site is surrounded by compatible land uses including RD residential uses, a church, a car dealership, and open space. Development of a residential project would be consistent with the applicable land use policies and the surrounding land uses. Past, present, and future projects will be required to develop according to land use plans and regulations, which would help to ensure consistency with surrounding land uses. Therefore, cumulative land use impacts from past, present, and future projects would be less than cumulatively significant. Consequently, because the project would not result in any significant land use impacts and cumulative land use impacts would be less than significant, the project's incremental contribution would not be cumulatively considerable.

Noise

As discussed in Section XII, *Noise*, potential noise and vibration impacts associated with the proposed project could occur due to construction, nearby stationary noise sources, or traffic. Construction activities for the proposed project could coincide with construction activities from the

cumulative projects listed in Table 3-46. However, the closest cumulative project to the proposed project site is the Cabot Career Lofts, which is approximately 3,500 feet north of the project site. Attenuation due to distance, as well as intervening topography and building structures, would substantially reduce construction noise and groundborne vibration to levels that would be imperceptible or barely audible to people in the immediate project vicinity. Furthermore, project construction noise impacts would be less than significant with the implementation of **Mitigation Measure MM NOI-1**, which would implement standard noise reduction measures and limit construction activities to the hours permitted by the City of Laguna Niguel's Municipal Code. Therefore, because the project, with mitigation, would not result in any significant construction noise or vibration impacts and cumulative projects would not add noticeably to the overall construction noise and vibration levels in the project vicinity, construction noise and vibration impacts would not be cumulatively considerable.

Stationary noise sources affecting the project site include the car wash and auto body repair shop at Mercedes Benz of Laguna Niguel. As described in Section XII, *Noise*, the impact from these noise sources would be less than significant and noise levels would be further reduced by implementation of **Mitigation Measures MM NOI-2** and **MM NOI-3**. The noise levels produced by these sources are not predicted to significantly increase in the future, and no cumulative projects that might include stationary noise sources are proposed within approximately 3,500 feet of the project site. Therefore, the cumulative impact from stationary noise sources would not be cumulatively considerable.

The proposed project site would be potentially affected by traffic noise from the nearby I-5 and SR-73 freeways. The analysis of on-site traffic noise levels provided in Section XII, *Noise*, includes the effects of cumulative growth under future year (2035) conditions. Cumulative traffic noise impacts at proposed on-site noise-sensitive receivers would be less than significant with implementation of **Mitigation Measure MM NOI-2**, which calls for the construction of noise barriers around affected noise-sensitive locations, with actual barrier heights and locations to be determined by a detailed noise study based on final site, grading, and architectural plans for the project. Cumulative interior traffic noise impacts would be less than significant with implementation of **Mitigation Measure MM NOI-3**, which requires HVAC systems at all residential units and a detailed noise assessment (based on final site, grading, and architectural plans) to determine specific building design features required for compliance with the City's interior standard of 45 dB CNEL. Therefore, with mitigation, the cumulative on-site impacts from traffic noise would not be cumulatively considerable.

The combination of the proposed project, the cumulative projects listed in Table 3-46, and ambient growth would result in a permanent increase in traffic volumes on several local roadways in the project vicinity, which could affect nearby off-site noise-sensitive receivers. These cumulative traffic volume increases were reported in the TIA (Appendix J). Table 3-47 compares existing traffic noise levels with future (2035) traffic noise levels at off-site noise-sensitive receivers both with and without the project, and shows the contribution of the proposed project to cumulative traffic noise level increases. The proposed project would not contribute more than 0.2 dB to cumulative traffic noise increases at any location except along Avenida del Caballo and Star Drive. An increase of 0.2 dB or less would be imperceptible and would not be cumulatively considerable. Cumulative traffic noise increases along Star Drive are predicted to be 1.7 dB with the implementation of the proposed project, which is 1.3 dB greater than the predicted increase without the project. Cumulative traffic noise increases along Avenida del Caballo are predicted to be 2.4 dB with the implementation of the proposed project, which is 2.4 dB greater than the predicted increase without the project. However, noise level increases of less than 3 dB are considered imperceptible or barely perceptible; furthermore, the cumulative traffic noise levels along Star Drive and Avenida del Caballo would

remain 10 to 13 dB below the City's applicable noise standard of 65 dB CNEL. Therefore, cumulative traffic noise impacts at off-site receivers would not be cumulatively considerable.

Table 3-47. Estimated Cumulative Traffic Noise Levels at Off-site Receivers

Roadway/Segment	Estimated Traffic Noise Levels at Nearest Receptor to Roadway Centerline, dB CNEL					
	Existing	Future (2035) Without Project	Future Without Project Increase Over Existing	Future (2035) With Project	Future With Project Increase Over Existing	Contribution of Project to Cumulative Noise Increase
Avenida del Caballo						
Star Drive to Project Site	49.4	49.4	0.0	51.8	2.4	2.4
Charreadas						
Paseo de la Colinas to Avenida del Caballo	45.5	45.5	0.0	45.5	0.0	0.0
Crown Valley Parkway						
West of Cabot Road	65.3	66.3	1.0	66.3	1.0	0.0
East of Cabot Road	63.7	64.9	1.2	64.9	1.2	0.0
Cabot Road						
North of Crown Valley Parkway	64.8	67.0	2.2	66.8	2.0	-0.2
Crown Valley Parkway to Paseo de la Colinas	65.7	66.6	0.9	66.7	1.0	0.1
Paseo de la Colinas						
West of Cabot Road	67.0	67.6	0.6	67.6	0.6	0.0
Cabot Road to Star Drive	67.0	67.7	0.7	67.7	0.7	0.0
Star Drive to Camino Capistrano	57.8	58.4	0.6	58.6	0.8	0.2
Star Drive						
South of Paseo de la Colinas	53.3	53.7	0.4	55.0	1.7	1.3
Camino Capistrano						
North of Paseo de la Colinas	56.7	57.2	0.5	57.2	0.5	0.0
Paseo de la Colinas to Avery Parkway	60.8	61.4	0.6	61.5	0.7	0.1
South of Avery Parkway	64.9	65.3	0.4	65.3	0.4	0.0
Avery Parkway						
Camino Capistrano to I-5 Southbound Ramps	58.2	58.8	0.6	58.9	0.7	0.1
I-5 Southbound Off-Ramp to I-5 Northbound On-Ramp	57.9	58.5	0.6	58.5	0.6	0.0
East of I-5 Northbound On-Ramp	66.8	67.3	0.5	67.3	0.5	0.0

Estimated Traffic Noise Levels at Nearest Receptor to Roadway Centerline, dB CNEL						
Roadway/Segment	Existing	Future (2035) Without Project	Future Without Project Increase Over Existing	Future (2035) With Project	Future With Project Increase Over Existing	Contribution of Project to Cumulative Noise Increase
I-5 Southbound Off-Ramp						
North of Avery Parkway	59.9	60.3	0.4	60.4	0.5	0.1
I-5 Northbound On-Ramp						
North of Avery Parkway	60.4	60.9	0.5	60.9	0.5	0.0

Note: Reported traffic noise levels are taken from Table 3-27 in Section XII, *Noise*
 CNEL = Community Equivalent Noise Level
 dB = decibel
 I-5 = Interstate 5

Population and Housing

As described in Section XIII, *Population and Housing*, the proposed project would have a less-than-significant impact associated with direct population growth and would have no impact related to indirect population growth, displacement of existing housing, and displacement of people. The proposed project includes the construction of up to 71 small-lot, single-family residences on a 19.5-acre hillside. The proposed project is expected to accommodate approximately 185 residents. Compared to the City of Laguna Niguel's 2013 estimated population of 64,186, the additional 185 residents would represent less than a 1% increase in population.

Past, present, and future projects have been and will continue contributing to growth. Cumulative population and housing impacts from past, present, and future projects are and will be cumulatively significant because the region will need to continue to expand to meet the needs of future generations and residents; however, the project's very small incremental contribution to this cumulative impact would be less than cumulatively considerable.

Public Services

As described in Section XIV, *Public Services*, the proposed project would have less-than-significant impacts on fire and police protection, parks, and libraries and a less-than-significant impact on schools with mitigation incorporated. Mitigation for schools would ensure that the proposed project pays the statutory school impact fees to fully mitigate the addition of students to CUSD facilities. The proposed project would be required to meet all access, water, and fire protection systems per the CBC and Fire Code as well as other City Municipal Codes, which would minimize potential fire-related impacts of the proposed project. Furthermore, OCFA would require a Secured Fire Protection Agreement prior to approval of the project. The Secured Fire Protection Agreement would specify the pro-rata fair share funding of capital improvements necessary to establish adequate fire protection facilities, equipment, and personnel. Additionally, with the City's regular coordination with OCSD and reviewing staffing levels in concert with population and geography during service contract renewals, it is expected that the proposed project would not result in

substantial adverse impacts on police protection services. Moreover, the proposed project would project adequate park accommodations and would meet the requirements of the LNZN.

Past, present, and future projects have been and will continue placing demands on public services. Development impact fees would help offset the additional demand, and an increase in local residents paying local taxes could be used to pay for more public services. Ultimately, public services are policy issues, but fees and taxes help to ensure that funding is available. As such, cumulative public service impacts from past, present, and future projects are and would be less than cumulatively significant because funding mechanisms are in place that afford local municipalities the ability to maintain public services commensurate with population. Therefore, the project's small incremental contribution would be less than cumulatively considerable.

Recreation

As described in Section XV, *Recreation*, the proposed project would have a less-than-significant impact on recreation. The proposed project would result in the construction of recreation areas as a part of the site design. Past, present, and future projects have been and will continue placing demands on recreational resources. Future projects in the City of Laguna Niguel would also be subject to Section 9-1-522 of the LNZN, which requires dedicated park land, or the payment of park fees, for developments depending on their dwelling unit numbers and densities. As such, cumulative recreation impacts from past, present, and future projects are and would be less than cumulatively significant because funding mechanisms are in place that afford local municipalities the ability to maintain recreational resources commensurate with population. Therefore, the project's small incremental contribution would be less than cumulatively considerable.

Transportation/Traffic

As described in Section XVI, *Transportation/Traffic*, the proposed project's transportation/traffic impacts would be limited primarily to the construction phase of the project. With implementation of a construction traffic management plan, there would be no impacts that would exceed a level of significance for traffic. The construction traffic management plan is required to ensure that construction traffic is coordinated with a traffic plan. Operational traffic would not exceed a City threshold and would continue to operate at acceptable levels with the project.

A cumulative traffic analysis was prepared as part of the TIA (Appendix J), and includes the seven intersections analyzed for the proposed project. The traffic implications of past, present, and reasonably foreseeable future projects include a future-term scenario for the year 2035 and thresholds for impacts are determined through the same method as the project-level analysis (maintaining LOS D or better for the City of Laguna Niguel and LOS C or better for Caltrans).

Baseline traffic conditions in the year 2035 are composed of General Plan Buildout Year (2035) plus Project Conditions. As shown in Table 3-48, the only intersection that would exceed the thresholds of significance is Cabot Road at Crown Valley Parkway.

Table 3-48. Year 2035 Peak Hour Intersection Capacity Analysis

Intersection	AM Peak		PM Peak	
	V/C ¹ (Delay ²)	LOS	V/C ¹ (Delay ²)	LOS
Cabot Road/Crown Valley Parkway	0.856	D	0.971	E
Camino Capistrano/Paseo de la Colinas	0.627	B	0.632	B
Cabot Road/Paseo de la Colinas	0.640	B	0.668	B
Star Drive/Paseo de la Colinas	0.416	A	0.380	A
Camino Capistrano/Avery Parkway	0.559	A	0.594	A
I-5 Southbound Ramps/Avery Parkway	0.464 (20.6)	A (C)	0.446 (17.0)	A (B)
I-5 Northbound Ramps/Avery Parkway	0.446 (16.0)	A (B)	0.408 (13.2)	A (B)

Source: Appendix J.

¹ - V/C (volume to capacity ratio) for signalized intersections is based on application of the Intersection Capacity Utilization methodology using Traffix 7.9 software.

² - Delay is average intersection delay (seconds) based on application of the Highway Capacity Manual 2010 methodology using Synchro 8 Build 806 software. Delay is reported for intersections under the jurisdiction of Caltrans for informational purposes only.

V/C and level of service (LOS) below the acceptable threshold are shown in bold.

However, as discussed above in Section XVI, *Transportation/Traffic*, because the change in the V/C ratio from opening year 2035 and opening year 2035 plus project would be less than 0.01, or 1%, the project would not contribute a significant impact. Therefore, the proposed project's incremental contribution to cumulative traffic impacts would not be cumulatively considerable, and impacts would be less than significant.

Utilities and Service Systems

Cumulative impacts on utilities and service systems would occur if utility providers would be unable to provide adequate water, wastewater, solid waste disposal, and energy services and accommodate other projects. Past, present, and future projects have been and will continue to place demands on utility systems. Service fees will help offset the additional demand and developer fees would offset localized improvements. Cumulative utility and service system impacts from past, present, and future projects are and will be less than cumulatively significant because there are adequate sources of energy and water available as well as available capacity at the existing treatment plants and landfills. In addition, the City has indicated its commitment to the provision of adequate utilities in the LNGP and future expansion of infrastructure would be planned in advance of any potential deficiencies.

As described in Section XVII, *Utilities and Service Systems*, the proposed project would have a less-than-significant impact on all utilities. Additionally, the proposed project would incorporate the following energy-efficient features to minimize energy consumption:

- The proposed project would utilize equipment compliant with State and federal emissions requirements, such as minimum Tier 2 off-road construction equipment, and adhere to AB 32 Scoping Plan control measures adopted by the State of California during construction and operation.
- The project would comply with the requirements of the CalGreen building code and water-saving restrictions, including drought-tolerant landscaping.

- The project would comply with AB 939 to reduce waste.

Furthermore, the proposed project has received conditional Will Serve Letters from MNWD and SDG&E. Thus, the proposed project's incremental contribution to utility demand is considered less than cumulatively considerable.

c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less-than-Significant Impact with Mitigation Incorporated. Based on the analysis above, the proposed project could have potentially significant environmental effects related to air quality, biological resources, cultural resources, geology and soils, hydrology and water quality, noise, public services (schools), and traffic that could cause substantial adverse effects on human beings, either directly or indirectly. However, implementation of mitigation measures, as provided within each of these resource topic sections of this environmental checklist, would reduce project-related significant impacts to less-than-significant levels. Therefore, after implementation of mitigation measures, the proposed project would result in a less-than-significant environmental impact on human beings.

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