

Ranch Hills Planned Development
Planning Application NO. PA 18-0034
Draft Environmental Impact Report (EIR)
County EIR No. 635
SCH No. 2021060400
Volume 1

Lead Agency

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ACRONYMS AND ABBREVIATIONS

Acronym/ Abbreviation	Meaning
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ACMs	asbestos-containing materials
ADT	Average Daily Traffic
AF	acre-feet
AGGI	Annual Greenhouse Gas Index
AOE	Archaeological Determinations of Eligibility
Basin Plan	Water Quality Control Plan
BMPs	Best Management Practices
CAAQs	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Prevention
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDMG	California Department of Mines and Geology
CDP	Census Designated Place
CEC	California Energy Commission
CEQA	California Environmental Quality Act of 1970
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	methane
CHRIS	California Historical Resources Information System
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent

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Acronym/ Abbreviation	Meaning
County	County of Orange Public Works, OC Development Services/Planning
CPHI	California Points of Historical Interest
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CWA	Clean Water Act
CWPP	County-Wide Protection Plan
cy	cubic yards
DAMP	Drainage Area Management Plan
dB	decibel
dBA or dB[A]	A-weighted decibel
DDT	dichlorodiphenyltrichloroethane
diesel PM	diesel particulate matter
DOC	Department of Conservation
DTSC	Department of Toxic Substances Control
du/ac	dwelling units per acre
DWR	California Department of Water Resources
EDR	Environmental Data Resources, Inc.
EERE	Office of Energy Efficiency and Renewable Energy
EIR	Environmental Impact Report
EO	Executive Order
EOCWD	East Orange County Water District
ESAs	Environmentally Sensitive Areas
ESCP	Erosion and Sediment Control Plan
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FIRM	FEMA Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse Gas
GWP	global warming potential
GWR	groundwater recharge
H ₂ SO ₃	sulfurous acid
H ₂ SO ₄	sulfuric acid
HCS	Hazard Communication Standard
HFCs	hydrofluorocarbons
HOA	homeowner's association
HPDF	Historic Property Data File

Acronym/ Abbreviation	Meaning
HUD	U.S. Department of Housing and Urban Development
I-5	Interstate 5
IBC	International Building Code
IRWD	Irvine Ranch Water District
IS/MND	Initial Study/Mitigated Negative Declaration
LBP	Lead Based Paints
L _{dn}	Day-night average sound level
LED	light emitting diode
LID	Low Impact Development
LOS	level of service
LRA	Local Responsibility Area
LST	localized significance threshold
MEI	maximally exposed individual
MM	mitigation measure
MND	Mitigated Negative Declaration
Model WQMP	Model Water Quality Management Plan
mph	miles per hour
MRZ	Mineral Resource Zone
MSDSs	material safety data sheets
MSL	above mean sea level
MT	metric tons
MTCO ₂ e	metric tons of carbon dioxide equivalent
MWDOC	Municipal Water District of Orange County
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NALs	Numeric Action Levels
National Register	National Register of Historic Places
NCCP/HCP	Natural Community Conservation Plan and Habitat Conservation Plan
ND	Negative Declaration
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NO	Nitric oxide
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent

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Acronym/ Abbreviation	Meaning
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O ₃	ozone
OCFA	Orange County Fire Authority
OCFCD	Orange County Flood Control District
OCWD	Orange County Water District
OEHHA	Office of Environmental Health Hazard Assessment
OHP	California Office of Historic Preservation
OSHA	Occupational Safety and Health Administration
PA	Planning Area
PCBs	polychlorinated biphenyls
PFCs	perfluorocarbons
PM ₁₀	particulate matter, including both particles equal to or smaller than 10 microns in size
PM _{2.5}	particles equal to or smaller than 2.5 microns in size
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
ppm	parts per million
PRC	California Public Resources Code
RARE	rare, threatened, and endangered species
RCRA	Resource Conservation and Recovery Act (
REC1	water contact recreation
REC2	non-contact recreation
RHNA	Regional Housing Needs Assessment
RPS	Renewable Portfolio Standard
RR	regulatory requirement
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RTPs	regional transportation plans
RWQCB	Regional Water Quality Control Board
Santa Ana River Basin Plan	Water Quality Control Plan for the Santa Ana River Basin
SB	Senate Bill
SC	Standard Condition
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center

Acronym/ Abbreviation	Meaning
SCE	Southern California Edison
SCGC	Southern California Gas Company
sf	square feet
SF ₆	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SHMA	Seismic Hazards Mapping Act
SO ₂	sulfur dioxide
SO ₃	sulfur trioxide
SoCAB	South Coast Air Basin
SO _x	sulfur oxides
SR-261	State Route 261
SR	State Route
SRA	State Responsibility Area
SRAs	source receptor (air monitoring) areas
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic air contaminants
TGD	Technical Guidance Document
TMDL	Total Maximum Daily Load
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VHFHSZ	Very High Fire Hazard Severity Zone
VOCs	volatile organic compounds
VTTM	Vesting Tentative Tract Map
WARM	warm freshwater habitat
WDID	Waste Discharge Identification
WDRs	Waste Discharge Requirements
WILD	wildlife habitat
WQMP	Water Quality Management Plan
WRA	Wildfire Risk Area
WUI	Wildland-Urban Interface
ZEVs	zero-emission vehicles
ZNE	zero net energy

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1.0 EXECUTIVE SUMMARY

This section provides a summary of the Draft Environmental Impact Report (EIR) for Ranch Hills Planned Development Project (Project). The Project proposes a Use Permit and Vesting Tentative Tract Map to allow the replacement of the existing Tustin Hills Racquet and Pickleball Club with a Planned Unit Development consisting of 17 buildings containing 34 single-family townhome units and 3 single-family detached units for a total of 37 units. Based on the zoning, the proposed single-family townhome units (formally mapped for condominium purposes) are not a permitted use. However, pursuant to Government Code section 65589.5(j)(4), a zone change is not required for this Project because the Project is consistent with the objective General Plan standards and criteria but the zoning for the Project site is inconsistent with the General Plan due to the inconsistency with the density allowances. This section provides a summary of the Project, areas of known controversy and issues to be resolved, a summary of project alternatives, and a summary of all Project impacts, associated mitigation measures, applicable County's Standard Conditions, regulatory requirements, and level of significance after mitigation and Standard Conditions are applied and incorporated into the Project.

1.1 INTRODUCTION

This EIR has been prepared by the County of Orange Public Works, OC Development Services/Planning (County) to evaluate potential environmental effects that would result from development of the Project. This EIR has been prepared in conformance with the California Environmental Quality Act of 1970 (CEQA) statutes (Cal. Pub. Res. Code, Section 21000 et. seq., as amended), implementing guidelines (Cal. Code Regs., Title 14, Section 15000 et. seq.) (CEQA Guidelines), and the 2020 County of Orange Local CEQA Procedures Manual.

The County is the lead agency under CEQA for preparation of this EIR.

1.2 PROJECT LOCATION AND SETTING

Project Location

The Project site is located at 11782 Simon Ranch Road, in the North Tustin area of unincorporated Orange County, California. The U.S. Census Bureau defines a Census Designated Place (CDP) for North Tustin. CDPs represent a concentration of population for the purposes of gathering and correlating statistical data. In 2005, the U.S. Census Bureau changed the name of the CDP to Tustin Foothills. The North Tustin area includes the unincorporated communities of Cowan Heights, East Tustin, Lemon Heights, Panorama Heights, and Red Hill.

The Project site is located east of the intersection of Pavillion Drive and Simon Ranch Road, just north of the City of Tustin in an unincorporated island of the County of Orange. The North Tustin community is located in central Orange County and is surrounded by the City of Tustin to the south, unincorporated County of Orange to the east, City of Orange to the north, and City of Santa Ana to the west. Regional access to the site is provided via Interstate 5 (I-5) and State Route 261 (SR-261) toll road. The I-5 freeway is located approximately two and one-half miles south of the Project site, and SR-261 slightly less than one mile to the east of the site. Local access is provided

by Tustin Ranch Road, Irvine Boulevard, Red Hill Avenue, and Browning Avenue. The Project site is identified as Assessor's Parcel Number 104-321-01. The regional and local vicinity of the Project site are depicted on Exhibit 1-1, Regional Location Map. An aerial photograph of the Project site and the surrounding area are provided on Exhibit 1-2, Aerial Photograph.

As shown in Exhibit 1-3, General Plan Land Use Map, the Project site has a General Plan land use designation of Suburban Residential (1B) Communities allowing a density of 0.5 to 18 dwelling units per acre (du/ac). The Project site is zoned as A1 "General Agricultural" District as shown in Exhibit 1-4, Zoning Map.

Project Setting

The Tustin Hills Racquet and Pickleball Club currently occupies the approximate 5.88-acre Project site. The existing access point to the Project site is located near the intersection of Pavillion Drive, Simon Ranch Road, and Outlook Lane. This existing driveway would be the sole point of entry to the Project site. The site is currently developed with eight full-sized tennis courts, 12 pickleball courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet and meeting rooms accommodating up to 330 individuals, and administrative offices, for a total of approximately 10,000 square feet. The facility is served by a paved parking area that can accommodate approximately 127 cars.

Single family residential land uses surround the Project site in all directions. The rear yards of adjacent residences abut the Project site on all sides. The City of Tustin city limits is adjacent to the eastern Project site boundary.

No public sidewalks are present around or through the Project site. There is a pedestrian access between the eastern end of the parking lot to Racquet Hill Road to the east, via a series of steps leading to a level, paved sidewalk, which leads to Racquet Hill Road. No public transit services are available on or directly adjacent to the site.

The Project site does not support any natural open space or native vegetation; however, there is mature ornamental landscaping onsite, which includes, but is not limited to, palm trees, pepper trees, pine trees, hedge, and turf. Storm water currently leaves the Project site via a concrete drainage ditch located in the most southerly corner of the site, which conveys flows for approximately 200 feet to a City of Tustin storm drain system. The City's system drains to the San Diego Creek located approximately four miles to the south and ultimately into the Upper Newport Bay. Upper Newport Bay is hydraulically connected to Lower Newport Bay and the Pacific Ocean.

Regional Setting

The Project site is in the South Coast Air Basin (SoCAB) and under the jurisdiction of the South Coast Air Quality Management (SCAQMD). The Project is located within the Santa Ana River Basin and would be subject to the requirements of the Santa Ana Regional Water Quality Control Board (RWQCB) and County of Orange.

The Project site is located along the eastern portion of the Coastal Plain of Orange County, situated on the western flank of the foothills at the base of the Santa Ana Mountains northwest

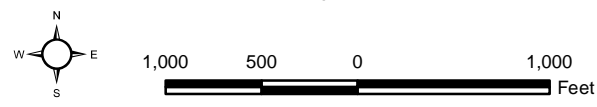


 Project Site

Regional Location Map

Ranch Hills Planned Development

Exhibit 1-1





Aerial Source: Esri, Maxar 2020

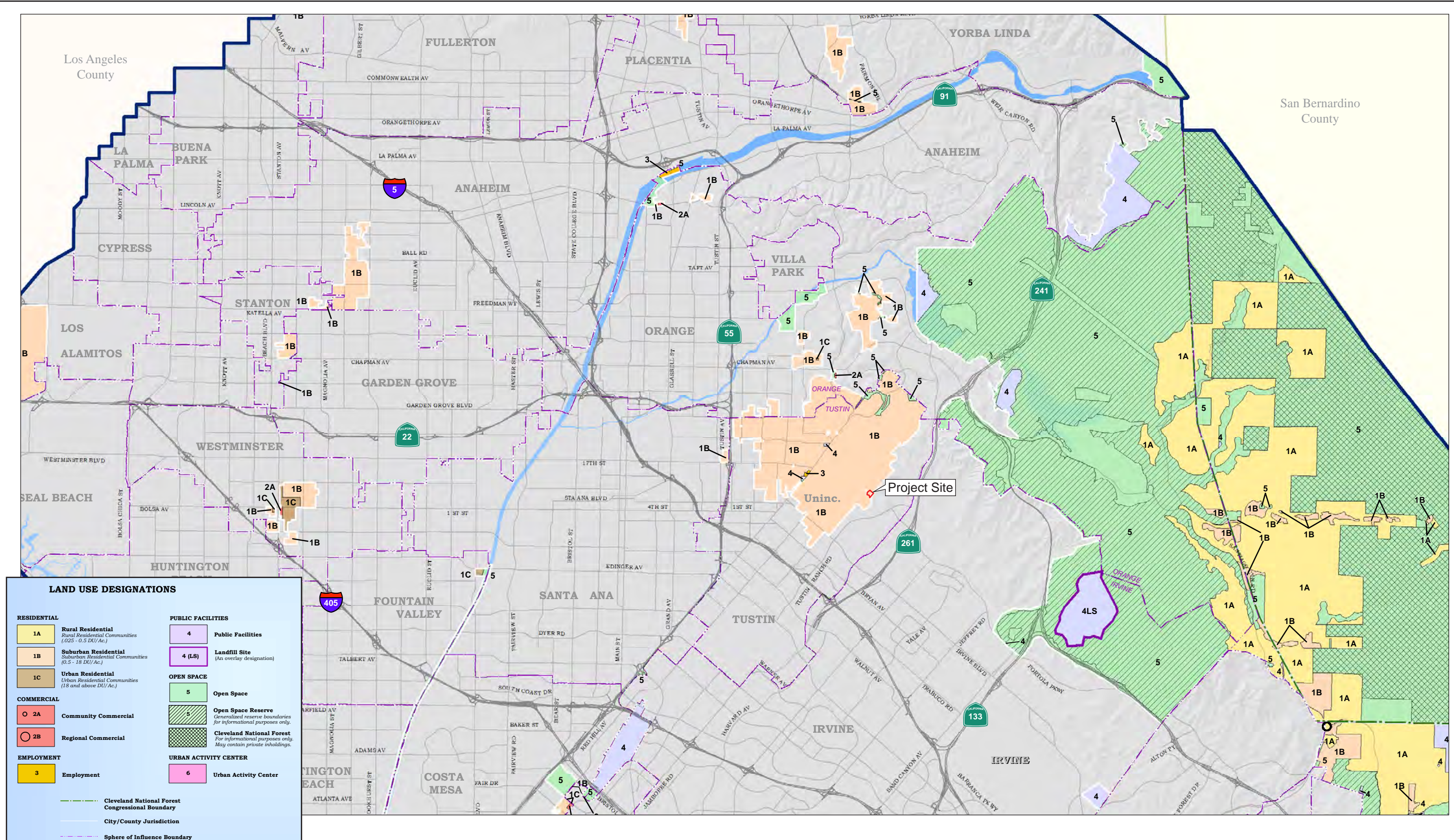
Aerial Photograph

Exhibit 1-2

Ranch Hills Planned Development



150 75 0 150
Feet



LAND USE DESIGNATIONS

RESIDENTIAL	PUBLIC FACILITIES
1A Rural Residential <i>Rural Residential Communities (0.25 - 0.5 DU/Ac.)</i>	4 Public Facilities
1B Suburban Residential <i>Suburban Residential Communities (0.5 - 18 DU/Ac.)</i>	4 (LS) Landfill Site <i>(An overlay designation)</i>
1C Urban Residential <i>Urban Residential Communities (18 and above DU/Ac.)</i>	5 Open Space
COMMERCIAL	5 Open Space Reserve <i>Generalized reserve boundaries for informational purposes only.</i>
2A Community Commercial	4LS Cleveland National Forest <i>For informational purposes only. May contain private inholdings.</i>
2B Regional Commercial	6 Urban Activity Center
EMPLOYMENT	3 Employment
3 Employment	6 Urban Activity Center

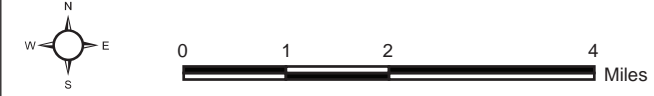
- - - Cleveland National Forest Congressional Boundary
 - - - City/County Jurisdiction
 - - - Sphere of Influence Boundary

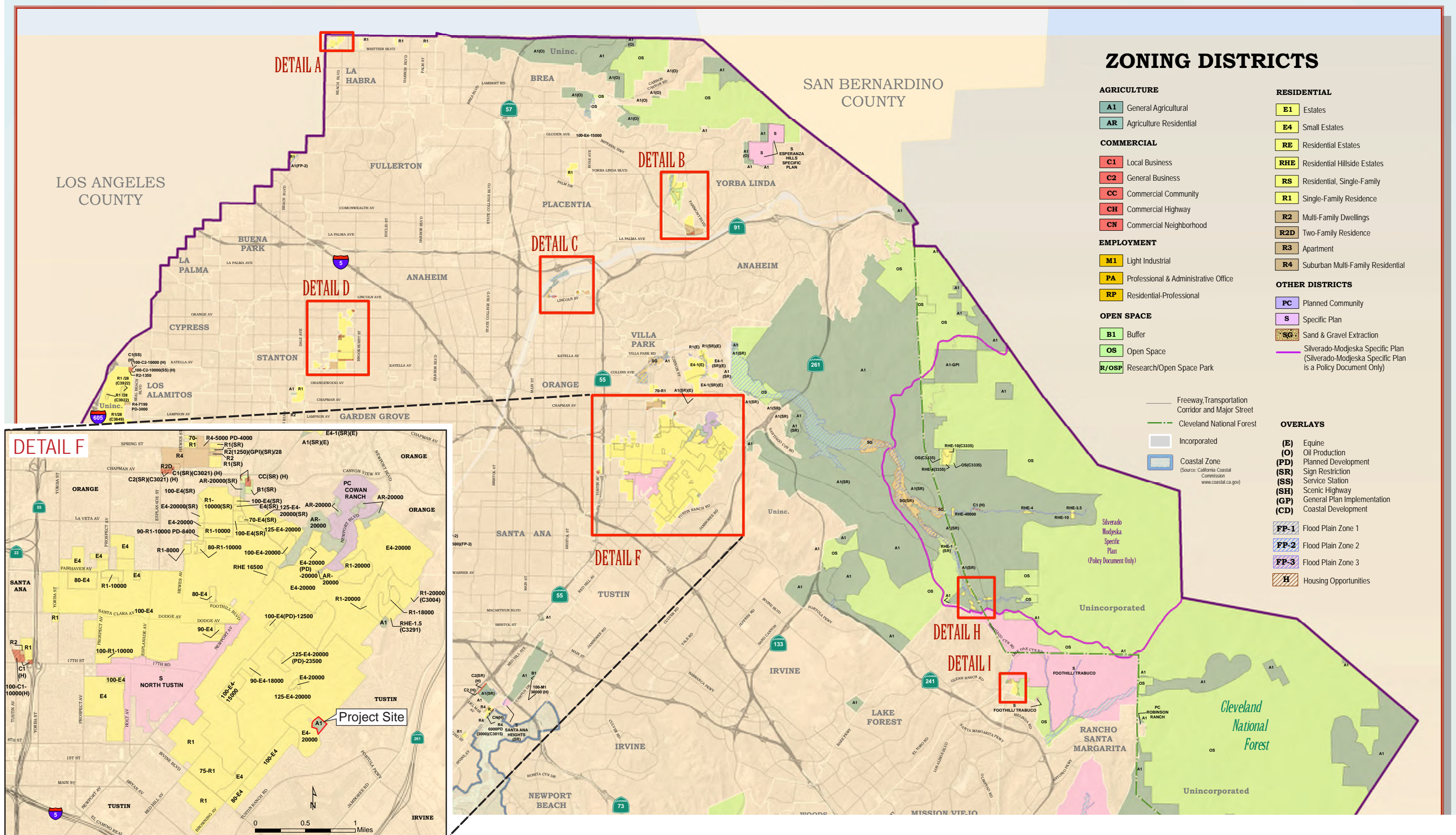
Source: OC Public Works, 2015

General Plan Land Use Map

Ranch Hills Planned Development

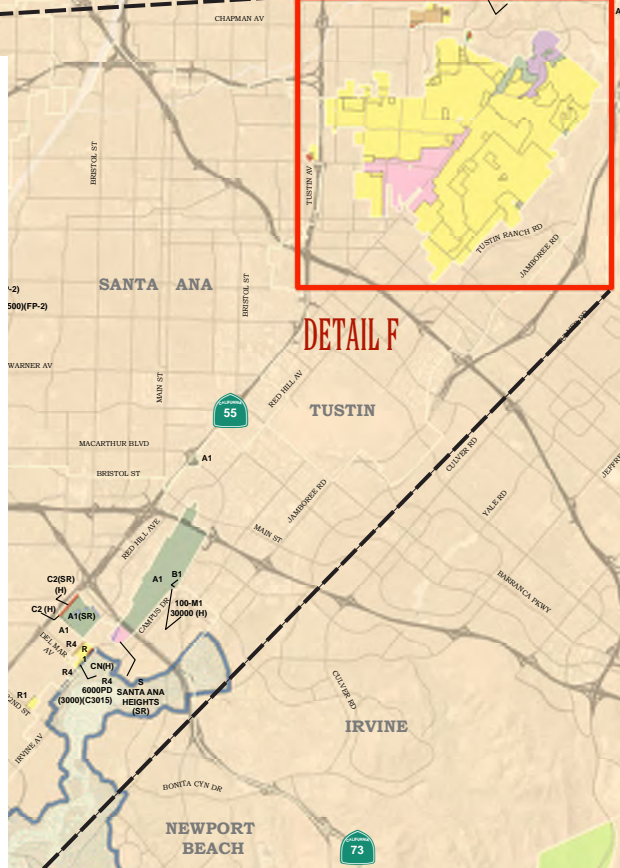
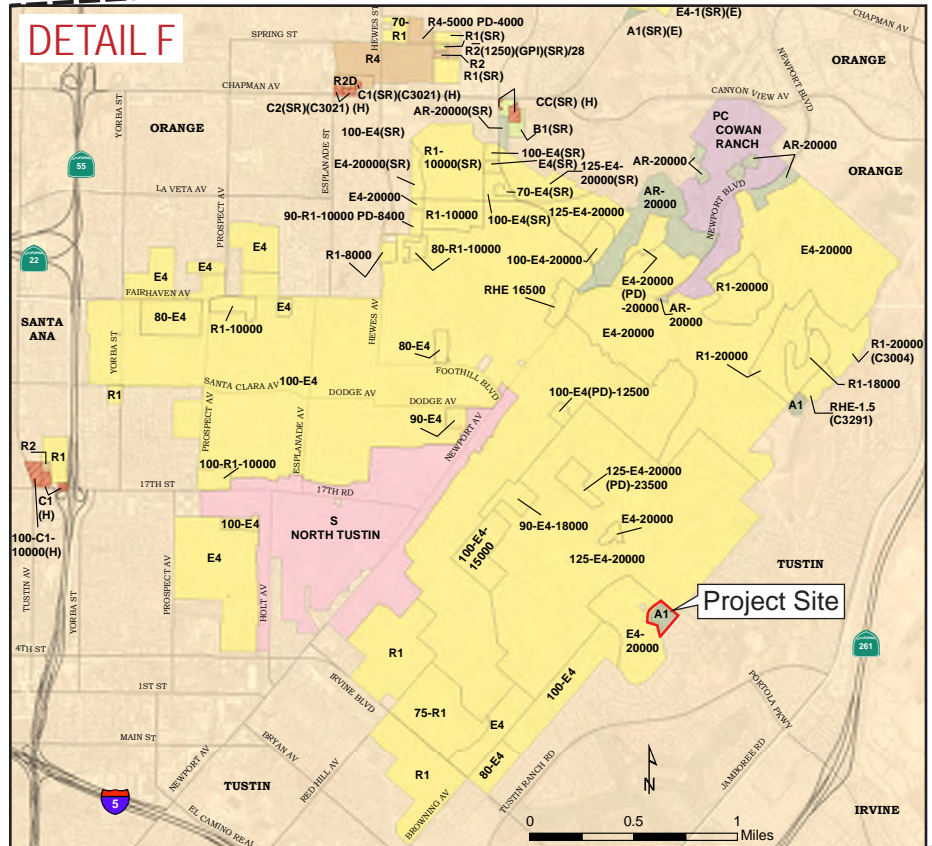
Exhibit 1-3





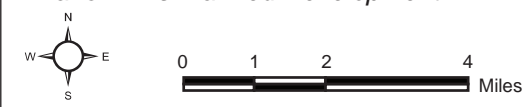
ZONING DISTRICTS

AGRICULTURE	RESIDENTIAL
A1 General Agricultural	E1 Estates
AR Agriculture Residential	E4 Small Estates
COMMERCIAL	RE Residential Estates
C1 Local Business	RHE Residential Hillside Estates
C2 General Business	RS Residential, Single-Family
CC Commercial Community	R1 Single-Family Residence
CH Commercial Highway	R2 Multi-Family Dwellings
CN Commercial Neighborhood	R2D Two-Family Residence
EMPLOYMENT	R3 Apartment
M1 Light Industrial	R4 Suburban Multi-Family Residential
PA Professional & Administrative Office	OTHER DISTRICTS
RP Residential-Professional	PC Planned Community
OPEN SPACE	S Specific Plan
B1 Buffer	SG Sand & Gravel Extraction
OS Open Space	SM Silverado-Modjeska Specific Plan (Silverado-Modjeska Specific Plan is a Policy Document Only)
R/OSP Research/Open Space Park	
OVERLAYS	
(E) Equine	
(O) Oil Production	
(PD) Planned Development	
(SR) Sign Restriction	
(SS) Service Station	
(SH) Scenic Highway	
(GP) General Plan Implementation	
(CD) Coastal Development	
FP-1 Flood Plain Zone 1	
FP-2 Flood Plain Zone 2	
FP-3 Flood Plain Zone 3	
H Housing Opportunities	



Zoning Map

Ranch Hills Planned Development



Source: OC Public Works, 2015

of Peters Canyon Wash. The Project site is located within the USGS Orange, 7.5-minute Topographic Map (USGS 2015).

Additional existing setting descriptions are provided in the topical environmental sections (4.1 through 4.18) that are relevant to the specific environmental topic.

Per Section 15206 of the CEQA Guidelines, the Project is not classified as a project of Statewide, Regional, or areawide Significance.

1.3 PROJECT DESCRIPTION

The Project proposes a Use Permit and Vesting Tentative Tract Map to allow the replacement of the existing Tustin Hills Racquet and Pickleball Club with a Planned Unit Development consisting of 17 buildings containing 34 single-family townhome units and 3 single-family detached units for a total of 37 units. A more in-depth description of the Project, including information on architectural style, floor plans, lighting, landscaping, utilities, and construction activities are provided in Section 3.0, Project Description, of this EIR.

1.4 PROJECT OBJECTIVES

The underlying purpose of the Project is to increase housing units in the North Tustin community. The Project is proposed to meet the following Project objectives:

- OBJ-1: Provide homes that would meet the increased demand and shortage of housing in the North Tustin community, especially for people that want to downsize but stay in the same general area.
- OBJ-2: Redevelop the Project site in an environmentally sensitive manner, including through the implementation of current codes and building standards that require water efficiency and energy efficiency, as well as through the implementation of water quality best management practices, drought tolerant landscaping, and other water conservation standards.
- OBJ-3: Redevelop the Project site in a manner that reduces impacts on the circulation network, and reduces traffic and other environmental impacts of the Tustin Hills Racquet and Pickleball Club, which currently occupies the Project site.

1.5 AREAS OF CONTROVERSY

Section 15123(b)(2) of the CEQA Guidelines requires that an EIR identify issues to be resolved, including the choice among alternatives and whether or how to mitigate a Project's significant effects on the environment.

An Initial Study/Mitigated Negative Declaration (IS/MND) was previously prepared and circulated for the Project in May 2020. A total of 223 comments were received on the IS/MND during the public review period, including two comments from public agencies and the remaining from residents and other interested persons. Thereafter, the Applicant requested and OC development Services/Planning agreed that an EIR should be prepared for the Project.

Following the decision to prepare an EIR the Project name was changed from Ranch Hills Community to Ranch Hills Planned Development.

As part of the EIR process, a Notice of Preparation (NOP) was released on June 17, 2021 (Appendix A, Notice of Preparation), beginning the 30-day public scoping period for the EIR, which ended on July 17, 2021. During the mandatory 30-day NOP scoping period leading up to publication of this Draft EIR, the County received four public agency comment letters and one comment letter from a public utility in response to the NOP. Copies of these NOP comment letters are provided in Appendix B, Scoping Comment Letters and IS/MND Comment Letters. This EIR has incorporated the comments received from the public and public agencies in response to the NOP and the previously circulated Initial Study/Mitigated Negative Declaration (IS/MND). Although the IS/MND was not adopted by the Planning Commission and has now been superseded by the preparation of this Draft EIR, written comments received on the IS/MND are also incorporated in the analysis and included in Appendix B, Scoping Comment Letters and IS/MND Comment Letters. Environmental issues that have been raised during opportunities for public input regarding the Project are summarized below and are addressed in each relevant issue area analyzed in Section 4.1, Aesthetics, through Section 4.18, Wildfire, of this Draft EIR. The primary issues identified during the comment period for the prior IS/MND and the NOP process include the following, along with the sections of the EIR in which each of these topics is addressed:

- Concerns related to the Project's height, development pattern, and density of development and compatibility with adjacent residential properties (see Section 4.1, Aesthetics and Section 4.10, Land Use and Planning);
- Potential for visual impacts and loss of views (see Section 4.1, Aesthetics);
- Potential additional traffic resulting from the Project (see Section 4.15, Transportation and Appendix K, Traffic Analysis);
- Pedestrian safety concerns related to streets surrounding the Project (see Section 4.15, Transportation);
- Potential effects on property values, public services, utilities, service systems, and public service providers (see Section 4.13, Public Service and Section 4.17, Utilities and Service Systems);
- Applicability of the previously recorded covenants (see Section 4.10, Land Use and Planning);
- Applicability of the Tract 3883 Declarations of Restrictions on the Project (see Section 4.10, Land Use and Planning);
- Noise impacts during construction (see Section 4.11, Noise);
- Cumulative construction impacts (see Sections through 4.1 through 4.18);
- Requests for preparation of an EIR;
- Concerns related to the Applicant's prior request for a zone change for the Project, which is no longer required for the Project (see Section 4.10, Land Use and Planning).

1.6 SUMMARY OF ENVIRONMENTAL IMPACTS

This EIR has been prepared to assess the potentially significant effects on the environment that could result from implementation of the Project. For a detailed discussion regarding potential significant impacts, please refer to Section 4.0, Environmental Analysis, of this EIR.

For each environmental topic, Table 1-1, Summary of Project Impacts, Mitigation Measures and Level of Significance, includes applicable mitigation measures and County Standard Conditions that are identified for impacts determined to be potentially significant. As shown in Table 1-1, Summary of Project Impacts, Mitigation Measures and Level of Significance, the Project would result in less than significant impacts with implementation of mitigation measures for the following topical areas evaluated in this EIR:

- Biological Resources; and
- Geology and Soils.

As described below, no significant and unavoidable impacts were identified for the Project.

As required by CEQA, a summary of the Project's impacts is provided in Table 1-1, Summary of Project Impacts, Mitigation Measures and Level of Significance, below. Also provided in Table 1-1, Summary of Project Impacts, Mitigation Measures and Level of Significance, is a list of the proposed mitigation measures that are recommended in response to the potentially significant impacts identified in the EIR, as well as a determination of the level of significance of the impacts after implementation of the recommended mitigation measures.

1.7 ALTERNATIVES TO THE PROJECT

CEQA Guidelines Section 15126.6 requires consideration and discussion of alternatives to the Project in an EIR. Three alternatives are discussed and evaluated in Section 5.0 of this EIR, which are each summarized below.

1.7.1 NO PROJECT ALTERNATIVE

As required by CEQA Guidelines Section 15126.6(e)(1), a No Project Alternative was considered. Under the No Project Alternative, the Project site would continue to operate as the Tustin Hills Racquet and Pickleball Club with no expansion or improvements. The existing facilities of the Tustin Hills Racquet and Pickleball Club consist of eight full-sized tennis courts, 12 pickleball courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet spaces, meeting rooms and administrative offices for a total of approximately 10,000 square feet. Under the No Project Alternative, the Project site would remain as it currently exists under existing conditions. Overall, the No Project Alternative would be economically, logistically, and politically feasible but it would not fully achieve the project objectives as defined above in Section 1.4, Project Objectives. A comparison of environmental impacts of the Project and the No Project Alternative is provided in Section 5.0. As required by CEQA Guidelines Section 15126.6(e), the County has evaluated the No Project Alternative. However, it is worth noting that the County has determined that the No Project Alternative would not be legally feasible due to the requirements of Senate Bill 330 (SB 330), the Housing Crisis Act

of 2019, and the Housing Accountability Act (“HAA”), Gov. Code § 65589.5. Pursuant to SB 330 and the HAA, the County has no authority to disapprove the proposed Project, since the Project meets all the objective criteria contained in the General Plan.

1.7.2 ALTERNATIVE 1 – INCREASED SETBACK ALTERNATIVE

Alternative 1 would consist of the replacement of the existing Tustin Hills Racquet and Pickleball Club with a Planned Unit Development consisting of a total of 37 units. Under this alternative, the proposed residential structures would be clustered to allow for an average 25-foot setback from adjacent residential parcels, which is greater than the proposed Project’s average setbacks. The same regulatory requirements, County Standard Conditions of Approval, and mitigation measures as identified for the Project would be applicable to Alternative 1. Alternative 1 would meet all of the project objectives, and was determined to be feasible. A comparison of environmental impacts of the Project and Alternative 1 is provided in Section 5.0.

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
Section 4.1 – Aesthetics			
a) Have a substantial adverse effect on a scenic vista.	Less Than Significant Impact	N/A	Less Than Significant Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact	N/A	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	Less Than Significant Impact	N/A	Less Than Significant Impact
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.	Less Than Significant Impact	SC AES-1: County Standard Condition of Approval LG01: Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, Building Permit Services.	Less Than Significant Impact
Section 4.2 – Air Quality			
a) Conflict with or obstruct implementation of the applicable air quality plan.	Less Than Significant Impact	N/A	Less Than Significant Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	Less Than Significant Impact	N/A	Less Than Significant Impact
c) Expose sensitive receptors to substantial pollutant concentrations.	Less Than Significant Impact	N/A	Less Than Significant Impact
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.3 – Biological Resources			
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	Potentially Significant Impact	MM BIO-1: To avoid impacts to roosting bats, vegetation removal shall be scheduled outside of the maternity season (i.e., April 1 through August 31). If tree clearing during the maternity season is not feasible, then pre-construction roost emergence survey will be conducted by a qualified biologist prior to Project vegetation clearing. Trees that are being used by roosting bats and those within 100 feet of an active roost will not be removed during the maternity season (i.e., April 1 through August 31) to avoid impacts on an active maternity roost, which may include juvenile bats that cannot fly. Also, a qualified bat Biologist shall be present during removal of palm trees at any time of year. During removal of palm trees, dead palm fronds shall be removed prior to felling the tree. To the greatest extent possible, the drop distance of palm fronds shall be minimized to minimize the potential for injury of bats that may be roosting in the fronds. The Biologist will examine the palm fronds immediately following their removal for torpid (dormant) bats.	Less Than Significant Impact After Mitigation
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 Game or US Fish and Wildlife Service.	No Impact	N/A	No Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	No Impact	N/A	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Potentially Significant Impact	<p>MM BIO-2: To avoid impacts on nesting birds and raptors, vegetation removal shall be scheduled between September 2 and February 14, which is outside the peak nesting season. If vegetation removal must occur during the peak nesting season (i.e., February 15 to September 1), a pre-construction nesting bird survey shall be conducted by a qualified Biologist within 7 days prior to vegetation removal activities. This requirement shall be included as notes on the contractor specifications and shall be reviewed by the Manager of Building & Safety, or designee, for compliance with this requirement prior to issuance of a grading permit.</p> <p>If the Biologist finds an active nest within or adjacent to the construction area, the Biologist will identify an appropriate protective buffer zone around the nest depending on the sensitivity of the species, the nature of the construction activity, and the amount of existing disturbance in the vicinity. In general, the Biologist shall designate a buffer between 10 to 200 feet for common nesting birds and 200 to 500 feet for nesting raptors. No construction activities will be allowed within the buffer until nesting activity has ended to ensure compliance with California Fish and Game Code.</p>	Less Than Significant Impact After Mitigation
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No Impact	N/A	Less Than Significant Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	No Impact	N/A	Less Than Significant Impact
Section 4.4 - Cultural Resources			
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	No Impact	N/A	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Less Than Significant Impact	<p>SC CUL-1: County Standard Condition of Approval A04:</p> <p>Prior to the issuance of any grading permit, the Applicant shall provide written evidence to the Manager, Subdivision and Grading, that the Applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the Applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeologist shall determine appropriate actions, in cooperation with the Applicant and County, for exploration and/or salvage.</p> <p>Prior to the release of the grading bond the Applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Applicant shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to the County, or its</p>	Less Than Significant Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
		designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, HBP/Coastal and Historical Facilities. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.	
c) Disturb any human remains, including those interred outside of formal cemeteries.	Less Than Significant Impact	RR CUL-1: If human remains are encountered during excavation activities, all work shall halt in the vicinity of the remains and the Orange County Coroner shall be notified (California Public Resources Code, Section 5097.98). The Coroner will determine whether the remains are of forensic interest. If the Coroner, with the aid of a County-certified archaeologist, determines that the remains are prehistoric, she/he will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD shall make his/her recommendation within 48 hours of being granted access to the site. If feasible, the MLD's recommendation should be followed and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (California Health and Safety Code, Section 7050.5). If the Applicant rejects the MLD's recommendations, the Applicant shall rebury the remains with appropriate dignity on the Project site in a location that will not be subject to further subsurface disturbance (California Public Resources Code, Section 5097.98).	Less Than Significant Impact
Section 4.5 - Energy			
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Less Than Significant Impact	N/A	Less Than Significant Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.6 - Geology and Soils			
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.	Less Than Significant Impact	N/A	Less Than Significant Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: ii) Strong seismic ground shaking.	Potentially Significant Impact	MM GEO-1: Prior to approval grading plans, the Applicant shall demonstrate, to the satisfaction of the Manager, Building and Safety, that the recommendations in the Geotechnical Investigation, Geotechnical Investigation Update, and in any future geotechnical reports have been fully and appropriately incorporated (Geocon 2017, 2020). These recommendations include, but are not limited to, the following geotechnical areas: <ul style="list-style-type: none"> • General • Soil and Excavation Characteristics • Minimum Resistivity, pH, and Water-Soluble • Grading 	Less Than Significant Impact After Mitigation

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Slope Construction • Shrinkage • Foundation Design • Foundation Settlement • Miscellaneous Foundations • Lateral Design • Concrete Slabs-on-Grade • Preliminary Pavement Recommendations • Retaining Walls • Retaining Wall • Temporary Excavations • Stormwater Infiltration • Surface Drainage • Plan Review 	
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: iii) Seismic-related ground failure, including liquefaction.	Less Than Significant Impact	N/A	Less Than Significant Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: iv) Seismic-related ground failure, including landslides.	Potentially Significant Impact	See above for MM GEO-1 .	Less Than Significant Impact After Mitigation
b) Result in substantial soil erosion or the loss of topsoil.	Less Than Significant Impact	N/A	Less Than Significant Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Potentially Significant Impact	See above for MM GEO-1 .	Less Than Significant Impact After Mitigation
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	Potentially Significant Impact	See above for MM GEO-1 .	Less Than Significant Impact After Mitigation
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	No Impact	N/A	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less Than Significant Impact	<p>SC GEO-1: County Standard Condition G01:</p> <p>Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, Building and Safety, for approval. The report shall include the information and be in the form as required by the Grading Code and Grading Manual.¹</p> <p>SC GEO-2: County Standard Condition A04:</p> <p>Prior to the issuance of the first grading permit, the project applicant shall provide written evidence to the Manager, Building and Safety, that applicant has retained</p>	Less Than Significant Impact

¹ The *Grading Manual* provides detailed compilation of rules, procedures, and interpretations necessary to carry out the provisions of the *OC Grading and Excavation Code*. The *Grading Manual* contains provisions specifying what needs to be addressed in geotechnical studies. Evaluation of the grading plans in compliance with the requirements of the Grading Manual would ensure the Project is in compliance with the OC Grading and Excavation Code.

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
		<p>a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant, to ensure proper exploration and/or salvage. Prior to the release of the grading bond the applicant shall submit the paleontologist's follow-up report for approval by the Manager, Permit Services. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point of identification and offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by Manager, Permit Services. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Permit Services.</p>	
Section 4.7 – Greenhouse Gas Emissions			
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Less Than Significant Impact	N/A	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.8 – Hazards and Hazardous Materials			
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	<p>SC HAZ-1: County Standard Condition of Approval FD03:</p> <p>Applicant/operator shall store, manifest, transport, and dispose of all on-site generated waste that meets hazardous waste criteria in accordance with California Code of Regulations Title 22 and in a manner to the satisfaction of the Manager, HCA/Hazardous Materials Program. Applicant shall keep storage, transportation, and disposal records on site and open for inspection to any government agency upon request.</p> <p>RR HAZ-1: Transport of materials deemed as hazardous must comply with the requirements of Title 22, Division 4.5 of the California Code of Regulations, the U.S. Department of Transportation regulations in the Code of Federal Regulations (specifically, Title 49, Hazardous Materials Transportation Act and Title 40, Part 263, Subtitle C of Resource Conservation and Recovery Act), California Department of Transportation (Caltrans) standards, and Occupational Safety and Health Administration (OSHA) standards.</p>	Less Than Significant Impact
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	<p>RR HAZ-2: Prior to issuance of a demolition permit for any buildings or facilities, building materials shall be assessed by a qualified Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 for the presence of lead-based paints (LBPs), asbestos-containing materials (ACM), and other common hazardous building materials (e.g., polychlorinated biphenyl [PCB]-containing lighting ballasts and mercury-containing light tubes and switches). If determined to be present, the Applicant shall prepare an abatement plan for their removal and safe transport in compliance with State and federal regulations, including Occupational</p>	Less Than Significant Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
		Safety and Health Administration (OSHA) regulations in the Code of Federal Regulations (specifically Title 29, Part 1926) and South Coast Air Quality Management District (SCAQMD) Rule 1403. The abatement plan shall meet the satisfaction of the Manager, Orange County Health Care Agency (OCHCA)/Hazardous Materials Program. Also, see above for SC HAZ-1 and RR HAZ-1 , which are also applicable to this threshold.	
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	N/A	Less Than Significant Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.	No Impact	N/A	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.	No Impact	N/A	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less Than Significant Impact	N/A	Less Than Significant Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.9 – Hydrology and Water Quality			
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Less Than Significant Impact	<p>SC HWQ-1: County Standard Condition of Approval WQ01:</p> <p>Prior to the issuance of any grading or building permits, the applicant shall submit for review and approval by the Manager, Inspection Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine structural and non-structural measures specified in the current Drainage Area Management Plan (DAMP). The WQMP must also:</p> <ul style="list-style-type: none"> • Address Site Design BMPs (as applicable) such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or “zero discharge” areas, and conserving natural areas; • Incorporate applicable Routine Source Control BMPs as defined in the DAMP; and • Include an Operation and Maintenance (O&M) Plan that identifies the mechanism(s) by which long-term O&M of all structural BMPs will be provided. 	Less Than Significant Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
		<p>SC HWQ-2: County Standard Condition of Approval WQ02:</p> <p>Prior to the issuance of any grading or building permits (for Priority Projects), the applicant shall include in the WQMP the following additional Priority Project information in a manner meeting the approval of the Manager, Inspection Services Division:</p> <ul style="list-style-type: none"> • Include post-construction Treatment Control BMP(s) as defined in the DAMP; • For applicants relying on Regional Treatment Controls, discuss applicable regional water quality and/or watershed program; and • Include an Operation and Maintenance (O&M) Plan that (1) describes the long-term operation and maintenance requirements for post-construction Treatment Control BMP(s); (2) identifies the entity that will be responsible for long-term operation and maintenance of the referenced Treatment Control BMP(s); and (3) describes the mechanism for funding the long-term operation and maintenance of the referenced Treatment Control BMP(s). <p>SC HWQ-3: County Standard Condition of Approval WQ03:</p> <p>Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the WQMP in a manner meeting the satisfaction of the Manager, Inspection Services Division, including:</p> <ul style="list-style-type: none"> • Demonstrate that all structural Best Management Practices (BMPs) described in the project’s WQMP have been implemented, constructed and installed in conformance with approved plans and specifications; • Demonstrate that the applicant has complied with all non-structural BMPs described in the project’s WQMP; • Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs for attachment to the WQMP; • Demonstrate that copies of the project’s approved WQMP (with attached O&M Plan) are available for each of the incoming occupants; • Agree to pay for a Special Investigation from the County of Orange for a date (12) twelve months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan; and • Demonstrate that the applicant has agreed to and recorded one of the following: 1) the CC&R’s (that must include the approved WQMP and O&M Plan) for the project Home Owner’s Association; 2) a water quality implementation agreement that has the approved WQMP and O&M Plan attached; or 3) the final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan. 	

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
		<p>SC HWQ-4: County Standard Condition of Approval WQ04:</p> <p>Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance under California’s General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing in a manner meeting the satisfaction of the Manager, Building Permit Services. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for County review on request.</p> <p>SC HWQ-5: County Standard Condition of Approval WQ05:</p> <p>Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Building Permit Services, to demonstrate compliance with local and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the applicant will ensure that all BMP’s will be maintained during construction of any future public rights-of-way. A copy of the current ESCP shall be kept at the project site and be available for County review on request.</p>	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less Than Significant Impact	N/A	Less Than Significant Impact
c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site;	Less Than Significant Impact	N/A	Less Than Significant Impact
c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less Than Significant Impact	N/A	Less Than Significant Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: iii) create or contribute runoff water which would exceed the capacity of existing or planner stormwater drainage systems or provide substantial additional sources of polluted runoff;	Less Than Significant Impact	N/A	Less Than Significant Impact
c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: iv) impede or redirect flood flows.	Less Than Significant Impact	N/A	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	No Impact	N/A	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.10 – Land Use and Planning			
a) Physically divide an established community.	No Impact	N/A	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.11 – Noise			
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Less Than Significant Impact	<p>RR NOI-1: Per Chapter 6, Noise Control, Section 4616, Specific Disturbing Noise Prohibited, of the City of Tustin Municipal Code the erection, demolition, alteration, repair, excavation, grading, paving or construction of any building or site is prohibited between the hours of 6 p.m. and 7 a.m., Monday through Friday and 5 p.m. and 9 a.m. on Saturdays and during all hours Sundays and city observed federal holidays.</p> <p>SC NOI-1: County Standard Condition of Approval N10:</p> <p>A. Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, Building Permits Services, that:</p> <ol style="list-style-type: none"> 1. All construction vehicles or equipment, fixed or mobile, operated within 1,000' of a dwelling shall be equipped with properly operating and maintained mufflers. 2. All operations shall comply with County of Orange Codified Ordinance Division 6 (Noise Control). 3. Stockpiling and/or vehicle staging areas shall be located as far as practicable from residential dwellings. <p>B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted grading plans, will be considered as adequate evidence of compliance with this condition.</p>	Less Than Significant Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
b) Generation of excessive groundborne vibration or groundborne noise levels.	Less Than Significant Impact	See above for SC NOI-1 .	Less Than Significant Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.	No Impact	N/A	No Impact
Section 4.12 – Population and Housing			
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	Less Than Significant Impact	N/A	Less Than Significant Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	No Impact	N/A	No Impact
Section 4.13 – Public Services			
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: i) Fire protection.	Less Than Significant Impact	N/A	Less Than Significant Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: ii) Police protection.	Less Than Significant Impact	N/A	Less Than Significant Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: iii) School.	Less Than Significant Impact	N/A	Less Than Significant Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: iv) Parks.	Less Than Significant Impact	N/A	Less Than Significant Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: v) Other public facilities.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.14 - Recreation			
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	N/A	Less Than Significant Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.15 - Transportation			
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Less Than Significant Impact	N/A	Less Than Significant Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	Less Than Significant Impact	N/A	Less Than Significant Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less Than Significant Impact	SC TRA-1: County Standard Condition of Approval T10: Prior to the issuance of any grading permits, the applicant shall demonstrate adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, OC Infrastructure/Traffic Engineering. The applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other encroachments from the limited use area in a manner meeting the approval of the Manager, Building and Safety.	Less Than Significant Impact
d) Result in inadequate emergency access.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.16 - Tribal Cultural Resources			
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: (i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k), or	Less Than Significant Impact	N/A	Less Than Significant Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
<p>a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>(ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	Less Than Significant Impact	<p>SC TCR-1: County Standard Condition of Approval TCR-1:</p> <p>If unanticipated archaeological resources or deposits are discovered during earth-moving activities, OCPW will implement the following measures. All work will halt within a 50-foot radius of the discovery. The Applicant will have a qualified professional archaeologist assess the significance of the find. If the resources are Native American in origin, the County shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCPW. Work will not continue within the no-work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the CRHR. If a potentially eligible resource is encountered, then the archaeologist and OCPW, as lead agency, in consultation with Gabrieleño Band of Mission Indians – Kizh Nation, will arrange for either: (1) avoidance of the resource, if possible; or (2) test excavations to evaluate eligibility, and if eligible, an attempt to resolve adverse effects to determine appropriate mitigation. The assessment of eligibility will be formally documented in writing as verification that the provisions in CEQA for managing unanticipated discoveries and PRC Section 5024 have been met.</p> <p>Also, see above for RR CUL-1, which is also applicable to this threshold.</p>	Less Than Significant Impact
Section 4.17 – Utilities and Service Systems			
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Less Than Significant Impact	N/A	Less Than Significant Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Less Than Significant Impact	N/A	Less Than Significant Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.	Less Than Significant Impact	N/A	Less Than Significant Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Less Than Significant Impact	N/A	Less Than Significant Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less Than Significant Impact	N/A	Less Than Significant Impact
Section 4.18 – Wildfire			
a) Substantially impair an adopted emergency response plan or emergency evacuation plan.	No Impact	N/A	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	No Impact	N/A	No Impact

**TABLE 1-1
SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES AND LEVEL OF SIGNIFICANCE**

Threshold of Significance	Impact Before Significance	Mitigation Measure, Regulatory Requirements, and Standard Conditions	Level of Significance After Mitigation
c) Require installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	No Impact	N/A	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage change.	No Impact	N/A	No Impact

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1.8 REFERENCES

U.S. Geological Survey. 2015. Orange Quadrangle, California-Orange Co., 7.5-Minute Series. Reston, Virginia: USGS. <https://www.usgs.gov/core-science-systems/national-geospatial-program/topographic-maps>

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2.0 INTRODUCTION

2.1 SUMMARY AND SCOPE OF THE PROJECT

This Draft Environmental Impact Report (EIR) has been prepared by the County of Orange, OC Public Works, Development Services (County) to evaluate the potential environmental effects that could result from development of the Ranch Hills Planned Development (Project). This EIR has been prepared in conformance with the California Environmental Quality Act of 1970 (CEQA) statutes (Cal. Pub. Res. Code, Section 21000 et. seq., as amended) and implementing guidelines (Cal. Code Regs., Title 14, Section 15000 et. seq.), and the 2020 County of Orange Local CEQA Procedures Manual (County of Orange 2020).

The County is the lead agency under CEQA for the preparation of this EIR.

The Project site is located within the community of North Tustin in unincorporated Orange County at 11782 Simon Ranch Road on Assessor's Parcel Number 104-321-01, as shown in Exhibit 1-1, Regional Location Map and Exhibit 1-2, Aerial Photograph, respectively. The Project site consists of 5.88 acres and is currently developed with the Tustin Hills Racquet and Pickleball Club situated within a residential setting. At this time, the clubhouse is closed but the tennis and pickleball courts are open. The Project site is not located within the boundaries of the North Tustin Specific Plan. Single family residential land uses surround the Project site in all directions. The rear yards of adjacent residences abut the Project site on all sides. The City of Tustin city limits are adjacent to the eastern Project site boundary.

The Project proposes replacing the Tustin Hills Racquet and Pickleball Club with a planned residential development consisting of 34 single-family townhome units and 3 single-family detached units for a total of 37 units. The Project will be formally mapped for condominium purposes. Project site access would be provided at the intersection of Pavillion Drive and Simon Ranch Road.

2.2 CEQA REQUIREMENTS

CEQA (California Public Resources Code, Section 21000 et. seq.) requires the preparation of an EIR for any Project that a lead agency determines may have a significant impact on the environment. According to Section 21002.1(a) of CEQA, "The purpose of an environmental impact report is to identify the significant effects on the environment of a Project, to identify alternatives to the Project, and to indicate the manner in which those significant effects can be mitigated or avoided." CEQA also establishes mechanisms whereby the public and decision makers can be informed about the nature of the Project being proposed, and the extent and types of impacts that the Project and its alternatives would have on the environment if they were to be implemented.

2.2.1 ENVIRONMENTAL PROCEDURES

The basic purposes of CEQA are to accomplish the following:

1. Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities;
2. Identify the ways that environmental damage can be avoided or be significantly reduced;
3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved (Section 15002 of the CEQA Guidelines).

An Initial Study/Mitigated Negative Declaration (IS/MND) was previously prepared and circulated for the Project in May 2020. A total of 223 comments were received on the IS/MND during the public review period, including two comments from public agencies and the remaining from residents and other interested persons. Thereafter, the Applicant requested and OC development Services/Planning agreed that an EIR be prepared for the Project. Following the decision to prepare an EIR the Project name was changed from Ranch Hills Community to Ranch Hills Planned Development.

As part of the EIR process, a Notice of Preparation (NOP) was released on June 17, 2021 (Appendix A, Notice of Preparation), beginning the 30-day public scoping period for the EIR. During the mandatory 30-day scoping period leading up to publication of this Draft EIR, the County received four public agency comment letters and one comment letter from a public utility in response to the NOP. Copies of these NOP comment letters are provided in Appendix B, Scoping Comment Letters and IS/MND Comment Letters, of this EIR. This EIR has incorporated the comments received from the public and public agencies in response to the NOP and the previously circulated Initial Study/Mitigated Negative Declaration (IS/MND). Although the IS/MND was not adopted by the Planning Commission and has now been superseded by the preparation of this Draft EIR, written comments received on the IS/MND are also incorporated in the analysis and included in Appendix B, Scoping Comment Letters and IS/MND Comment Letters. Environmental issues that have been raised during opportunities for public input regarding the Project are summarized below and are addressed in each relevant issue area analyzed in Section 4.1, Aesthetics, through Section 4.18, Wildfire, of this Draft EIR. The primary issues identified during the comment period for the prior IS/MND and the NOP process include the following:

The EIR has been made available for review to the public and public agencies to provide comments on the “sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the Project might be avoided or mitigated”. Copies of the Draft EIR and Appendices are available for review from **May 10, 2022 to June 29, 2022** at the following locations:

- OC Development Services/Planning Project website:
<https://ocds.ocpublicworks.com/service-areas/oc-development-services/planning-development/current-projects/3rd-district/pa180034>
- OC Development Services/Planning, County Administrative South building, 601 N. Ross Street, Santa Ana, CA 92701
- Orange County Public Library, Tustin Library, 345 E. Main Street, Tustin, CA 92780
- Orange County Public Library, Irvine Katie Wheeler Library, 13109 Old Myford Road, Irvine, CA 92602
- City of Orange Public Library, El Modena Branch Library, 380 S. Hewes Street, Orange, CA 92869

Electronic files related to this Project may be downloaded from the Project website referenced above.

Written comments regarding the Draft EIR must be submitted no later than **5:00 PM on Wednesday, June 29, 2022**. During the public review period, comments from the general public, organizations, and agencies regarding environmental issues analyzed in the Draft EIR and the Draft EIR's accuracy and completeness may be submitted to the lead agency via email to Kevin.Canning@ocpw.ocgov.com, or via mail to the following address:

Kevin Canning
Contract Planner
County of Orange Public Works
Development Services/Planning
P.O. Box 4048
Santa Ana, California 92702-4048

Written comments may also be submitted in person to the lead agency at the following address:

Kevin Canning
Contract Planner
County of Orange Public Works
Development Services/Planning
601 North Ross Street
Santa Ana, California 92701

As the lead agency for the Project, the County has assumed responsibility for preparing this document. The decision to consider the Project is within the purview of the County Planning Commission, and the Board of Supervisors, if appealed. The County will use the information included in this EIR to consider potential impacts to the physical environment associated with the Project when considering approval of the Project. As set forth in Section 15021 of the CEQA Guidelines, the County, as lead agency, has the duty to avoid or minimize environmental damage where feasible. Furthermore, Section 15021(d) of the CEQA Guidelines states that:

CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in

particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment.

2.3 EIR ORGANIZATION

This EIR is organized into eight sections, each containing its own references section. A list of the EIR sections and a brief description of their contents is provided below to assist the reader in locating information.

- **Section 1.0, Executive Summary:** This section provides a description of the Project location and setting, an abbreviated Project description, Project objectives, areas of controversy, summary of environmental impacts, and overview of alternatives considered by the County. Section 1.0 also includes Table 1-1, Summary of Project Impacts, Mitigation Measures and Level of Significance, which provides a summary of impacts for each threshold along with mitigation measures, as applicable.
- **Section 2.0, Introduction:** This section briefly discusses the purpose of the EIR, describes the environmental review process, describes the environmental setting of the Project, and gives an overview of the EIR's organization and topics covered in the EIR.
- **Section 3.0, Project Description:** This section provides a detailed description of the Project characteristics and the environmental setting of the Project, as well as a statement of the Project Objectives and a list of anticipated discretionary actions for the Project.
- **Section 4.0, Impact Analysis:** This section contains subsections 4.1 through 4.18. Each subsection includes discussions on the following topics: existing conditions, regulatory setting, thresholds of significance, impact analysis, cumulative impacts, mitigation program, and significance after mitigation.
- **Section 5.0, Alternatives:** This section includes an overview of CEQA requirements for the consideration and selection of alternatives, as well as alternatives considered but rejected. This section also includes an analysis of alternatives carried forward for consideration as well as a discussion of the environmentally superior alternative.
- **Section 6.0, Preparers:** This section lists the persons that directly contributed to preparation of this EIR.

2.4 ISSUES TO BE ADDRESSED IN THE EIR

The scope of the EIR is based on the findings of the technical studies, determination by the County, and input received from the agencies and the public as part of the scoping process as well as the comments received during the circulation of the IS/MND that was circulated for the Project in May 2020. Based on the County's determination, the EIR addresses all environmental topics with potential to result in significant effects. The environmental topics and issues within the topics with no potential for impact are identified in below in Section 2.5, Effects Not Found To Be Significant, of the EIR and focused out from further analysis in Section 4.0 of the EIR, Impact Analysis.

Based on the County's determination and the comments received by the County on the NOP and previous IS/MND, this EIR analyzes the following environmental topics with their respective section numbers:

- Aesthetics (4.1)
- Air Quality (4.2)
- Biological Resources (4.3)
- Cultural Resources (4.4)
- Energy (4.5)
- Geology and Soils (4.6)
- Greenhouse Gas Emissions (4.7)
- Hazards and Hazardous Materials (4.8)
- Hydrology and Water Quality (4.9)
- Land Use and Planning (4.10)
- Noise (4.11)
- Population and Housing (4.12)
- Public Services (4.13)
- Recreation (4.14)
- Transportation (4.15)
- Tribal Cultural Resources (4.16)
- Utilities and Services Systems (4.17)
- Wildfire (4.18)

2.5 EFFECTS NOT FOUND TO BE SIGNIFICANT

Consistent with Section 15128 of the CEQA Guidelines, an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant, and which were therefore not discussed in detail in the EIR. As discussed below, the Project would have no impacts related to the topics of agricultural and forestry resources and mineral resources. Therefore, these topics are not discussed further in Section 4.0, Impact Analysis, of this EIR.

Agricultural and Forestry Resources

- *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?*
- *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*
- *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])?*
- *Result in the loss of forest land or conversion of forest land to non-forest use?*
- *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. According to the California Important Farmland Finder maintained by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program, the Project site and surrounding areas are designated as Urban and Built-Up Land. The Project site is currently developed as the Tustin Hills Racquet and Pickleball Club and does not contain agricultural, timber, or forestland resources. The site is zoned as A1 "General Agricultural" District, with allowable uses defined by the County of Orange

as including agriculture, outdoor recreation, and other low intensity uses; however, there are no existing agricultural uses on the Project site that would be displaced by the Project. Therefore, the Project would have no impacts related to agriculture and forestry resources and no mitigation is required. This topic (Agricultural and Forestry Resources) will not be further analyzed in this EIR.

Mineral Resources

- ***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?***
- ***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 California Geological Survey (CGS) identifies three classes of Mineral Resource Zone (MRZ). MRZ-1 is an area with no significant mineral deposits, while MRZ-2 is an area with significant mineral deposits, and MRZ-3 is an area containing known mineral occurrences of undetermined mineral significance (CGS 2021a). The Project site is designated by the California Department of Mines and Geology as Mineral Resource Zone (MRZ) 3 (CGS 2021b). Additionally, the Department of Conservation Division of Oil, Gas, and Geothermal Resources has not identified oil, gas, or geothermal fields on the site or adjacent to the site. The nearest well, Chevron Well (No. 5-1), is located at Tustin Ranch Road, approximately 1,500 feet south of the site. The well is reported to be plugged and abandoned. Therefore, the development of the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state

Further, according to the County of Orange General Plan, Resources Element, Mineral Resources Map and Energy Resources Maps, no mineral resources, petroleum resources, or geothermal resources have been identified (County of Orange 2021c). Therefore, the development of the Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

The Project would not result in adverse impacts to any regionally or locally significant mineral resources, and no mitigation is required. This topic (Mineral Resources) will not be further analyzed in this EIR.

2.6 REFERENCES

- California Department of Conservation (CGS). 2021a. (October 7, access date). State Mining and Geology Board. Guidelines For Classification and Designation of Mineral Lands. Sacramento, CA: CGS.
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- . 2021b (October 7, access date). Parcel Map for APN 104-321-01. Santa Ana, CA: County of Orange. <https://www.ocgis.com/ocpw/landrecords/>
- . 2021c (August 2, last accessed). County of Orange General Plan. Santa Ana, CA: County of Orange, Development Services.
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3.0 PROJECT DESCRIPTION

3.1 INTRODUCTION

The purpose of the project description is to describe the Project in a way that allows for meaningful review by the public, reviewing agencies, and decision makers. Section 15124 of the California Environmental Quality Act (CEQA) Guidelines requires that the project description for an environmental impact report (EIR) contain the following: (1) the precise location and boundaries of a proposed project; (2) a statement of objectives sought by the proposed project including the underlying purpose of the project; (3) a general description of the project's technical, economic, and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR, including a list of the agencies that are expected to use the EIR in their decision making; (5) a list of the permits and other approvals required to implement the project; and (6) a list of related environmental review and consultation requirements required by federal, State, or local laws, regulations, or policies. An adequate project description need not be exhaustive but should supply the detail necessary for evaluation of the project.

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the CEQA Guidelines. The following project description provides the information needed to assess the environmental effects associated with the development, construction, and operation of the Project.

3.2 PROJECT LOCATION

The Project site is located at 11782 Simon Ranch Road, in the North Tustin area of unincorporated Orange County, California. The U.S. Census Bureau defines a Census Designated Place (CDP) for North Tustin. CDPs represent a concentration of population for the purposes of gathering and correlating statistical data. In 2005, the U.S. Census Bureau changed the name of the CDP to Tustin Foothills. The North Tustin area includes the unincorporated communities of Cowan Heights, East Tustin, Lemon Heights, Panorama Heights, and Red Hill.

The Project site is located on the east side of the intersection of Pavillion Drive and Simon Ranch Road, just north of the City of Tustin in an unincorporated island of the County of Orange. The larger unincorporated North Tustin community is located in central Orange County and is bordered by the City of Tustin to the south, City of Orange to the north, and City of Santa Ana to the west. Regional access to the site is provided via Interstate (I) 5 and State Route (SR) 261 toll road. The I-5 freeway is located approximately two and one-half miles south of the Project site, and SR-261 slightly less than one mile to the east of the site. Local access is provided by Tustin Ranch Road, Irvine Boulevard, Red Hill Avenue, and Browning Avenue. The Project site is identified as Assessor's Parcel Number 104-321-01 and is depicted in Exhibit 1-1, Regional Location Map and Exhibit 1-2, Aerial Photograph.

3.3 PROJECT OBJECTIVES

Section 15124(b) of the CEQA Guidelines requires “[a] statement of objectives sought by the project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and would aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.” Not only is a project analyzed in light of its objectives, but compatibility with project objectives is one of the criteria used in selecting and evaluating a reasonable range of project alternatives. Clear project objectives simplify the selection process by providing a standard against which to measure project alternatives.

The Applicant is proposing to demolish the existing facilities of the Tustin Hills Racquet and Pickleball Club (e.g., eight full sized tennis courts, 12 pickleball courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet spaces, meeting rooms and administrative offices for a total of approximately 10,000 square feet [sf]). The facility is served by a paved parking area that can accommodate approximately 127 cars. The Project would construct 37 units comprised of 34 single-family townhome units and 3 single-family detached units. As noted in Table 3-1, Public Agency Approvals, several public agency approvals are required as part of this process. The Project proposes a Conditional Use Permit for a planned development (PA180034) and a Vesting Tentative Tract Map (VTTM 18119).

The underlying purpose of the Project is to increase housing units in the North Tustin community. The Project is proposed to meet the following Project objectives:

- OBJ-1: Provide homes that would meet the increased demand and shortage of housing in the North Tustin community, especially for people that want to downsize but stay in the same general area.
- OBJ-2: Redevelop the Project site in an environmentally sensitive manner, including through the implementation of current codes and building standards that require water efficiency and energy efficiency, as well as through the implementation of water quality best management practices, drought tolerant landscaping, and other water conservation standards.
- OBJ-3: Redevelop the Project site in a manner that reduces impacts on the circulation network, and reduces traffic and other environmental impacts of the Tustin Hills Racquet and Pickleball Club, which currently occupies the Project site.

3.4 ENVIRONMENTAL SETTING

3.4.1 EXISTING CONDITIONS AND SURROUNDING LAND USES

The Project site is located within the community of North Tustin in an unincorporated island of the County of Orange at 11782 Simon Ranch Road on Assessor’s Parcel Number 104-321-01, as shown in the Exhibit 1-1, Regional Location Map and Exhibit 1-2, Aerial Photograph. The Project site has a General Plan land use designation of Suburban Residential (1B) Communities allowing a density of 0.5 to 18 dwelling units per acre (County of Orange 2021a). The Project site is zoned

as A1 “General Agricultural” District. Single family residential land uses surround the Project site in all directions, with the rear yards of adjacent residences abutting the Project site on all sides. Properties north, south, and west of the Project site are zoned as E4 “Small Estates” District, with General Plan land use designations of Suburban Residential (1B) Communities allowing a density of 0.5 to 18 dwelling units per acre (County of Orange 2021a). The City of Tustin city limits are adjacent to the eastern Project site boundary. Properties along the eastern Project site boundary within the City of Tustin are within the City’s East Tustin Specific Plan, which designates these parcels as Low-Density Residential land use allowing for up to 5 dwelling units per acre (Tustin 1997).

As noted above, the Project site currently developed with the Tustin Hills Racquet and Pickleball Club with, eight full-sized tennis courts, 12 pickleball courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet and meeting rooms accommodating 330 individuals and administrative offices, for a total of approximately 10,000 sf. The facility is served by a paved parking area that can accommodate approximately 127 cars. The club’s hours are 8 a.m. to 10 p.m. during weekdays and 8 a.m. to 6 p.m. on weekends, except for special events. The club’s banquet and meeting rooms are available for use year-round for weddings and other social gatherings.

The Project site is fully developed. Portions of the site are covered by ornamental vegetation. These areas generally consist of the interstitial areas between the buildings and other features within the Project site (such as the tennis and pickleball courts, parking lots, etc.), and along the perimeter of the Project site. The interstitial areas between the facilities are subject to frequent landscaping activities and are comprised of non-native, ornamental plant species, including sod grasses, Mexican fan palm (*Washingtonia robusta*), and freeway iceplant (*Carpobrotus edulis*). The Project site is generally encompassed by a narrow band of vegetation along the perimeter that is subject to less frequent landscaping activities. The northwestern, northeastern, and southwestern perimeter of the Project site contains rows of mature, ornamental tree species, predominantly comprised of Mexican fan palm and gum tree (*Eucalyptus* sp.). The southeastern perimeter is comprised of smaller, shrubby plant species, including bougainvillea (*Bougainvillea spectabilis*), mission fig (*Opuntia ficus-indica*), agave (*Agave* sp.), oleander (*Nerium oleander*), and laurel sumac (*Malosma laurina*), in addition to smaller tree species, such as carrotwood (*Cupaniopsis anacardioides*). A mature coast live oak tree (*Quercus agrifolia*) occurs onsite in the southern-most corner of the Project site perimeter. The plant species onsite are predominantly ornamental and a result of landscaping activities. No native or otherwise naturalized vegetation types occur on the Project site.

Storm water currently leaves the Project site via concrete drainage ditches located along the southwestern and southeastern boundaries of the Project site, which conveys flows for approximately 200 feet to a City of Tustin storm drain system. The City’s system drains to San Diego Creek located approximately four miles to the south and ultimately into Upper Newport Bay. Upper Newport Bay is hydraulically connected to Lower Newport Bay and the Pacific Ocean.

Vehicular access to the Tustin Hills Racquet and Pickleball Club is located at the intersection of Pavillion Drive and Simon Ranch Road.

No public sidewalks are present around or within the Project site. However, there is an existing pedestrian access path that connects the eastern end of the parking lot within the Project site to Racquet Hill Road to the east. This access path includes a series of steps within the Project site

that lead to a level, paved sidewalk located outside of the Project site, which leads to Racquet Hill Road. No portion of this path is located within an access or similar easement.

3.4.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT BASELINE

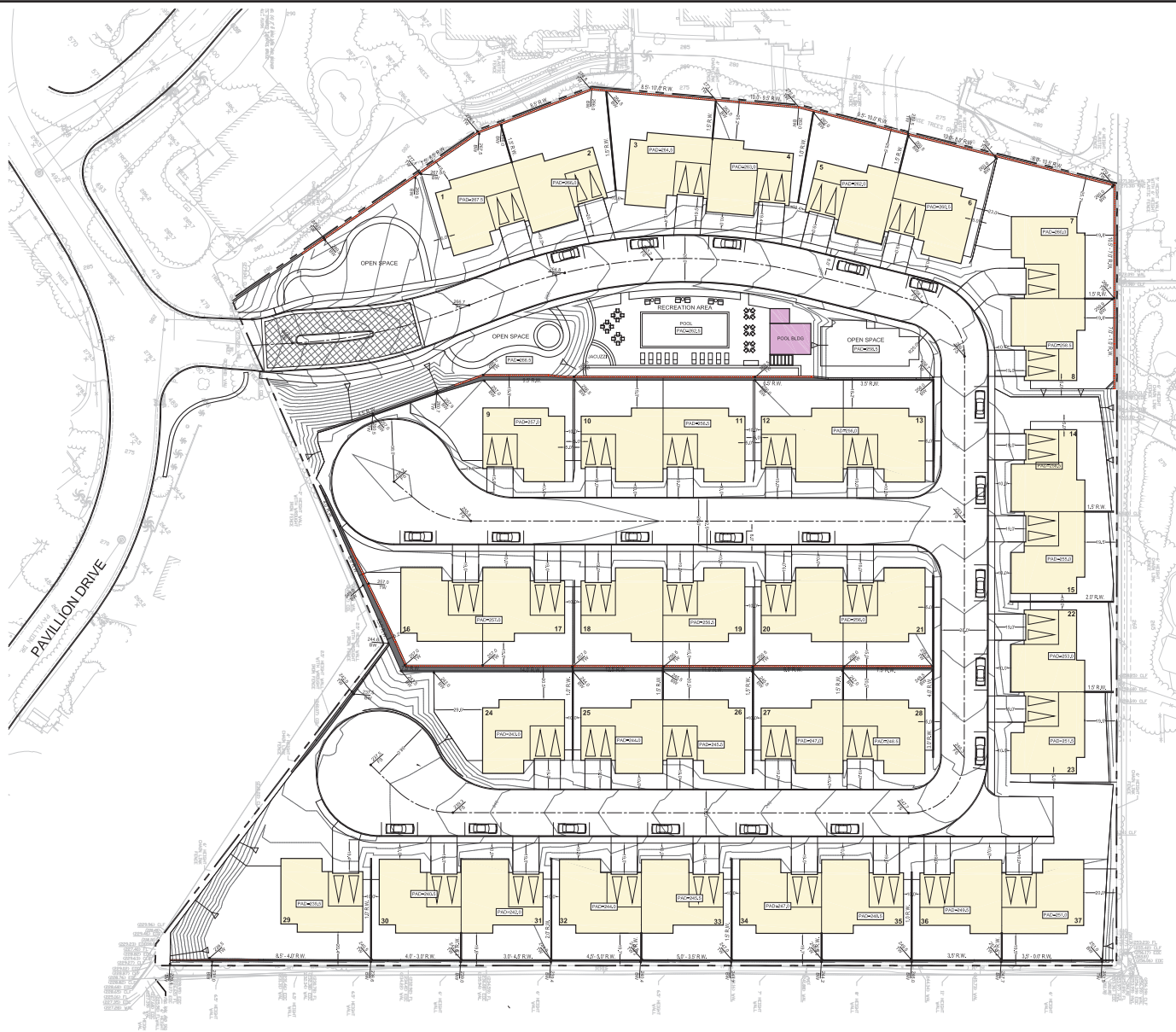
The baseline for a Project is normally the physical conditions that exist when the Notice of Preparation (NOP) is published. The NOP for the Project was published June 17, 2021, which is provided as Appendix A, Notice of Preparation, of this EIR (County of Orange 2021b). However, the CEQA Guidelines and applicable case law recognize that an appropriate environmental baseline can vary depending on the circumstances of a Project. Physical environmental conditions vary over time; thus, the use of environmental baselines that differ from the date of the NOP may be appropriate when conducting the environmental analysis in some cases. Given none of these circumstances apply to the Project, the baseline for the analyses presented for the Project in this Draft EIR is June 2021.

3.5 PROJECT THEME

The Project includes the replacement of the Tustin Hills Racquet and Pickleball Club with a planned residential development consisting of 34 single-family townhome units (two units attached) and 3 single-family detached units for a total of 37 units. The Project would be formally mapped for condominium purposes, meaning that future owners would own the inside of the townhome, but maintenance and upkeep of the home's exterior and yards would be covered by a homeowners association. Project site access would be provided at the intersection of Pavillion Drive and Simon Ranch Road. Additional information on the Project is provided below and depicted in Exhibit 3-1, Conceptual Site Plan.

Architectural Style

A general architectural theme for the Project is provided as Exhibits 3-2a and 3-2b, Exterior Concept Design. The Project would consist of two different floor and two different exterior elevation designs. This would create architectural variation as well as attractive building articulation that would be compatible with the surrounding community. Additionally, architectural variation of the façade would help to create more interesting street scenes. Exterior building materials would include decorative barn-style shutters, board and batt siding, and standing seam metal roofs over garages. Minimum building setbacks have been incorporated into the Project's design, which include the following minimums: 15-foot rear setback; 10-foot front setback; 5-foot side setback from a lot line; and 10-foot side setback from an adjacent structure at ground level. The proposed residences would be two stories, however the second story elements are proposed to be limited in area to approximately 65% of the area of the first story, allowing the second stories to be stepped back. The second-floor building setback as compared to first floor would vary throughout the buildings from approximately 5 feet to approximately 21 feet depending on location.



Source: JZMK Partners, 2020

Conceptual Site Plan

Ranch Hills Community



Exhibit 3-1



Source: JZMK Partners, 2018

Exterior Concept Design

Ranch Hills Planned Development

Exhibit 3-2a



PEDESTRIAN VIEW 1



PEDESTRIAN VIEW 2



STREET VIEW

Source: JZMK Partners, 2018

Exterior Concept Design

Ranch Hills Planned Development

Exhibit 3-2b

Floor Plans

The Project's two floor plans would provide 2 to 3 bedrooms and 3.5 bathrooms in each residential unit, with approximately 2,500 sf of living space. Homes would be one and two stories with a maximum height of 30 feet above the proposed pad elevation. Each home would have ground floor living with a full master suite on the ground level and the second floor devoted to a bonus room, bedroom, or home office. Each home would therefore allow for single floor living without the use of stairs to access the master bedrooms. Kitchens, dining, indoor and outdoor living areas would all be on the ground floors. Secondary bedrooms and/or a home office would also be located on the first floor. These features are intended to broaden the potential market to a variety of age groups, although the community would not be age restricted.

Landscaping

A unified landscape plan would be developed to create visual harmony with the architecture. The Project would provide front yard landscaping consistent with the Section 7-9-132.2 of the County of Orange Code of Ordinances (County of Orange 2021c). The Project's proposed plant palette is provided in Exhibits 3-3a and 3-3b, Plant Palette. All Project landscaping would be drought tolerant and would comply with the County of Orange Water Efficient Landscape Ordinance (Ord. No. 16-002) and with the Guidelines for Implementation of the Water Efficient Landscape Ordinance. The homeowners association would be responsible for maintaining all landscaping in common areas; individual homeowners would be responsible for maintaining landscaping within the private fenced yards. As discussed in Section 4.1, Aesthetics, the landscape plan shall conform to County requirements. Refer to **SC AES-2** in Section 4.1.4(d), Aesthetics, for this requirement.

Community Amenities

The Project would include open space areas, as well as a pool area with pool, jacuzzi, deck, and pool building. Community amenity areas are depicted in Exhibit 3-1, Conceptual Site Plan.

Building Pads, Walls, and Fencing

The Project's proposed building pads and their relative elevations are shown in Exhibit 3-4, Vesting Tentative Tract Map (VTTM). Traditional retaining walls and plantable retaining walls, which can be planted with landscaping that grows from the exposed face of the retaining wall, are proposed at a variety of locations within the Project. These retaining walls would range from two to 14 feet in height, as shown in Exhibit 3-4, Vesting Tentative Tract Map (VTTM), Exhibit 3-5, Preliminary Grading Plan, and Exhibit 3-6, Vesting Tentative Tract Map (VTTM) Sections.

The Project's grading has been designed to be setback from the property line, so existing fences along the edge of the Project site that are generally along the property line would remain in place. The Project would install new fences at the driveway to the Project site, around the pool, jacuzzi, and pool building area, as well as along backyards and portions of side yards for each townhome unit. Fences would be 6 feet in height. Fence design would be a combination of decorative, natural wood, and concrete block where necessary as required by Section 7-9-64 of the County of Orange Code of Ordinance.



OLEA EUROPAEA



AFRICAN SUMAC



LAGERSTROEMIA INDICA



ARBUTUS MARINA TREE



PUNICA GRANATUM



LOPHOSTEMON CONFERTUS



CITRUS

POTENTIAL TREE LEGEND - MODERN FARMHOUSE

Cupaniopsis anacardioides	Carrot Wood
Lagerstroemia hybrid 'muskogee'	Crape Myrtle
Lagerstroemia hybrid 'natchez'	Crape Myrtle
Lophostemon confertus	Brisbane Box
Melaleuca linarifolia	Flaxseed Paperbark
Melaleuca quinquenervia	Broad Leaved Paperbark
Metrosideros excelsus	New Zealand Christmas Tree
Olea europea	European Olive
Pistacia chinensis	Chinese Pistache
Podocarpus gracilior	Fern Pine
Quercus ilex	Holly Oak
Quercus suber	Cork Oak
Quercus virginiana	Southern Live Oak
Rhus lancea	African Sumac
Ulmus parvifolia 'drake'	Drake Elm
Apricot	Apricot
Avocado species	Avocado Tree
Citrus 'valencia'	Orange
Eriobotrya japonica	Kumquat
Ficus carica	Loquat
Plums	Fig
Punica granatum	Plum
	Pomegranate

Source: BGB Design Group, 2019



POTENTIAL SHRUBS/GROUNDCOVER LEGEND - MODERN FARMHOUSE

- Anisodonte hypomandarum*
- Bougainvillea 'Raspberry Ice'*
- Bougainvillea 'San Diego Red'*
- Buddleja davidii x weyeriana*
- Buxus species*
- Callistemon 'Little John'*
- Cistus 'Sunset'*
- Dietes bicolor*
- Dianella 'Cassa Blue'*
- Grewia occidentalis*
- Justicia brandegeana*
- Lavandula angustifolia*
- Lavandula stoechas*
- Ligustrum japonicum 'Texanum'*
- Loropetalum chinense*
- Myrtus communis 'Compacta'*
- Nandina domestica 'Gulf Stream'*
- Nephrolepis species*
- Phormium species*
- Pittosporum tobira*
- Podocarpus gracilior*
- Podocarpus henkelii*
- Podocarpus macrophyllus 'Maki'*
- Pyracantha koidzumii 'Santa Cruz'*
- Rhaphiolepis indica 'Clara'*
- Rosa flora carpet*
- Rosa 'Iceberg'*
- Rosmarinus officinalis 'Arp'*
- Rosmarinus 'Tuscan Blue'*
- Russelia equisetiformis*
- Salvia leucantha 'Midnight'*
- Salvia leucantha 'Santa Barbara'*
- Simmondsia chinensis*
- Solanum rantonnetii 'Royal Robe'*
- Stachys byzantina*
- Tecoma Stans 'Sierra Apricot'*
- Viburnum suspensum*
- Viburnum tinus*
- Westringia fruticosa*
- Agapanthus africanus*
- Baccharis pilularis 'Pigeon Point'*
- Dianella tasmanica*
- Dietes irioides 'John Runner'*
- Hemerocallis hybrids*
- Lantana camara 'Dwarf Yellow'*
- Myoporum parvifolium 'Putah Creek'*
- Pelargonium peltatum*
- Pyracantha coccinea 'Lowboy'*
- Rosmarinus officinalis 'Huntington Carpet'*
- Trachelospermum jasminoides*
- Tulbaghia violacea*
- Carex praegracillis*
- Festuca mairei*
- Festuca rubra 'Molate Blue'*
- Juncus pallidus*
- Leymus condensatus*
- Liriope graminifolia*
- Liriope muscari variegata*
- Miscanthus sinensis 'Morning Light'*
- Miscanthus transmorrisonensis*
- Muhlenbergia capillaris 'Regal Mist'*
- Muhlenbergia dumosa*
- Muhlenbergia lindheimeri*
- Muhlenbergia rigens*
- Pennisetum mesiacum*
- Pennisetum spathiolatum*
- Sesleria autumnalis*
- Sesleria heufferiana*
- Sesleria nitida*
- Thysanolaena maxima*
- Tripsicum dactyloides*
- Vetiveria zizanioides*

Source: BGB Design Group, 2019

Plant Palette

Ranch Hills Planned Development

Exhibit 3-3b



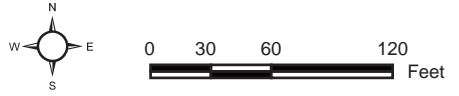
LEGEND:

AC	ASPHALTIC CONCRETE
CF	CURB FACE
EX	EXISTING
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FS	FINISHED SURFACE
PAD	PAD ELEVATION
RCC	PORTLAND CEMENT CONCRETE
ST.LT	STREET LIGHT
SF	SQUARE FEET
TC	TOP OF CURB
- - -	CENTERLINE
=====	CURB & GUTTER
- - - - -	DAYLIGHT LINE
- - - - -	PROPERTY LINE
- - - - -	SEWER
=====	TRACT BOUNDARY
=====	WATER MAIN
=====	DRAIN PIPE
■	INLET

Source: Robin B. Hamers & Assoc., Inc. Civil Engineers, 2021

Vesting Tentative Tract Map (VTTM)

Ranch Hills Planned Development





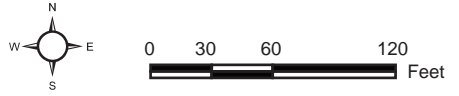
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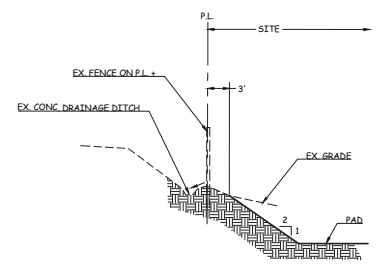
AC	ASPHALTIC CONCRETE
CF	CURB FACE
EX	EXISTING
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FS	FINISHED SURFACE
PAD	PAD ELEVATION
PCC	PORTLAND CEMENT CONCRETE
ST/LT	STREET LIGHT
SF	SQUARE FEET
TC	TOP OF CURB
---	CENTERLINE
---	CURB & GUTTER
---	DAYLIGHT LINE
---	PROPERTY LINE
---	SEWER
---	TRACT BOUNDARY
---	WATER MAIN
---	DRAIN PIPE
■	INLET

Source: Robin B. Hamers & Assoc., Inc. Civil Engineers, 2021

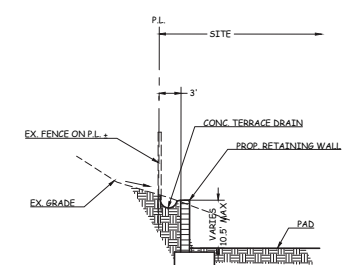
Preliminary Grading Plan

Ranch Hills Planned Development

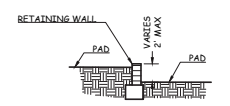




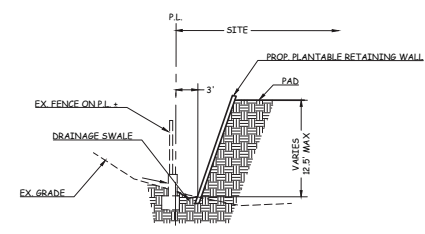
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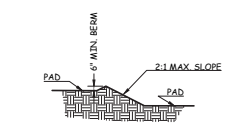
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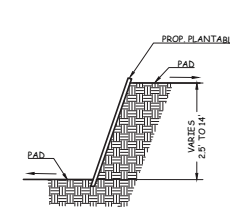
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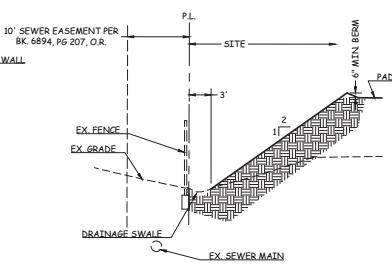
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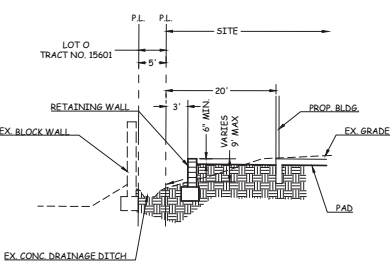
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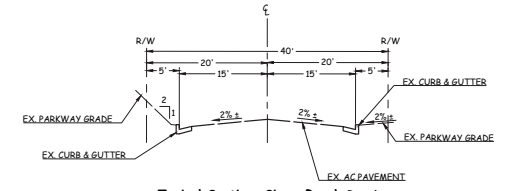
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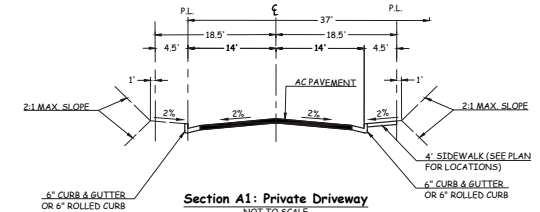
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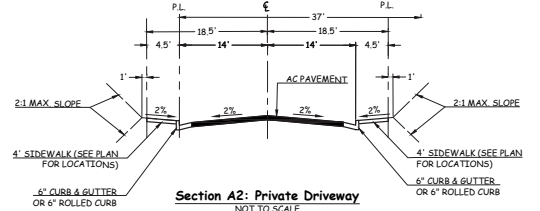
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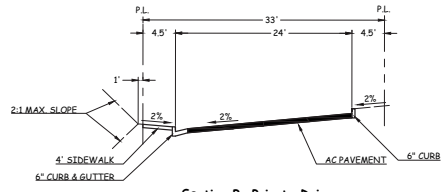
Typical Section: Simon Ranch Road
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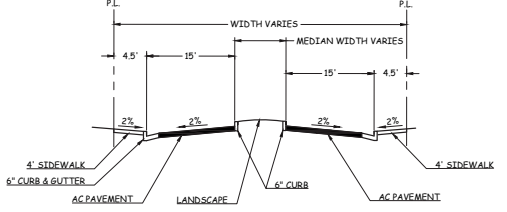
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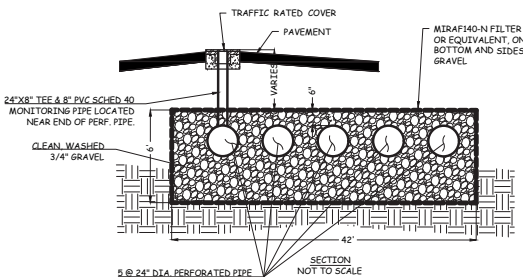
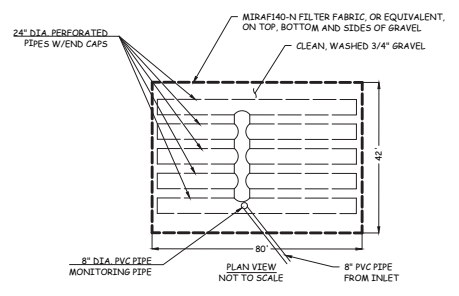
Section A2: Private Driveway
NOT TO SCALE



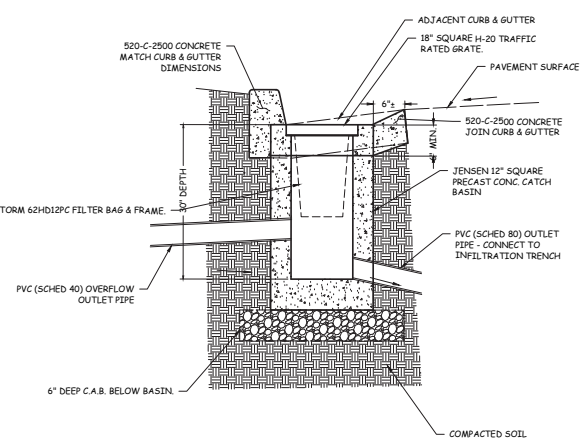
Section B: Private Driveway
NOT TO SCALE



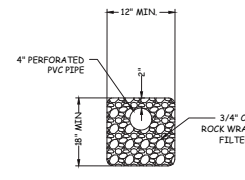
Section C: Private Driveway
NOT TO SCALE



BMP-1: INFILTRATION TRENCH
TRENCH AREA: 80'X42' = 3360 SF
TOTAL STORAGE: 7811 CF



18\"/>



ON-LOT FRENCH DRAIN
NOT TO SCALE

NOTE:
EACH UNIT TO INCLUDE 10 L.F. OF FRENCH
DRAIN PER 1,000 S.F. OF IMPERVIOUS SURFACES.

Source: Robin B. Hamers & Assoc., Inc. Civil Engineers, 2021

Lighting

Site lighting would be limited to exterior lighting associated with each unit and street lighting required for safety. An entry monument sign would be installed for the Project, which would include landscape lighting, as permitted and required by the County of Orange regulations and standards. Low level way-finding lighting for pedestrians/community residents would be provided in the common and recreation areas of the community for safety. Street lighting would be provided at street intersections, and as required by the County of Orange regulations and standards, as shown in Exhibit 3-5, Preliminary Grading Plan. All exterior lighting would be designed to minimize glare and light spillage onto adjacent properties (i.e., shielding of street lights). Consistent with current building code requirements and the County Standard Conditions of Approval (LG01), prior to issuance of a building permit a lighting plan would be submitted and approved by the Manager of Building and Safety. Refer to **SC AES-1** in Section 4.1.4(b), Aesthetics, for this requirement.

Vehicular Access, Parking and On-Site Circulation

The existing access point to the Project site is located at the intersection of Pavillion Drive and Simon Ranch Road, which would remain the sole point of entry to the Project. All streets within the Project site would be two-way, private (i.e., non-dedicated) streets that would conform to County of Orange standard design plans. As shown on Exhibit 3-6, Vesting Tentative Tract Map (VTTM) Sections, the Project's main entrance roadway would lead to two cul-de-sac streets. The internal streets have been designed consistent with the County of Orange standard traffic requirements for private streets. Off-street parking has been designed consistent with Section 7-9-145 of the County's Code of Ordinances, and the Project's internal circulation layout meets the requirements of the Orange County Fire Authority (OCFA) (County of Orange 2021c).

The Project includes a total of 169 parking spaces. Each unit would have its own two car garage as well as two additional on-site guest parking spaces within the driveway. On-street parking would be allowed on one side of each of the private streets within the Project site, which would result in an additional 21 parking spaces within the community. Overall, the Project includes 4.6 parking spaces per home.

Storm Water

In existing conditions, the Project site drains by surface flows southerly along a concrete drainage ditch for approximately 200 feet until it reaches a City of Tustin storm drain line, which eventually drains to San Diego Creek and Upper Newport Bay. The Project would include a storm water collection system that would collect storm water through a system of French drains, driveways, and curbs with gutters. Each residential unit would include a minimum of 10 linear feet of French drain per 1,000 sf of impervious surface area. Flows from the proposed streets would be conveyed via curbs and gutters downslope to the south where they would be conveyed underground via 18-inch drop inlet catch basins. An underground infiltration trench has been incorporated into the drainage system to treat the runoff. After treatment, storm water would be conveyed via a private storm drain to the southerly corner of the Project site from where the runoff would flow, as it does in existing conditions, off-site along an existing concrete drainage ditch to the south for approximately 200 feet where it would flow into a City of Tustin storm drain.

Demolition

Project construction includes the demolition of all existing buildings and other structures within the Project site, which includes eight full sized tennis courts, 12 pickleball courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet spaces, meeting rooms, and administrative offices for a total of approximately 10,000 sf, and a paved parking area that can accommodate approximately 127 cars. A minimum of fifty percent of the Project's demolition debris would be recycled, reused, and/or salvaged in compliance with the 2019 California Green Building Standards Code (CBSC 2018). Where feasible, the Project would involve on-site material recycling (such as the reuse of parking lot pavement for on-site road base). On-site material recycling would require the use of equipment such as a rock crusher. To avoid potential impacts related to dust and noise emissions, this equipment would be placed as far away as feasible from nearby residences. Materials that could not be recycled would be transported to a local landfill per governing regulations and best practices. Refer to the Utilities and Service Systems sections 4.17.4(d) and (e).

Grading Plans

The Project site is relatively flat and has been previously graded to accommodate the Tustin Hills Racquet and Pickleball Club. The Project would require minimal grading across the entire Project site to accommodate the finish grade of the proposed residential units. With implementation of the Project, elevations of the site would range from approximately 285 feet above mean sea level (msl) at the northern edge of the property to 240 feet above msl at the southern edge of the property. Grading would be balanced onsite with an estimated total of 12,000 cubic yards (cy) of soil being moved within the Project site (12,000 cy of cut and 12,000 cy of fill). The Project's proposed finished pad elevations are depicted in Exhibit 3-5, Preliminary Grading Plan. Typical sections depicting the slopes between Project pads and slopes leading to adjacent parcels are depicted in Exhibit 3-6., Vesting Tentative Tract Map (VTTM) Sections.

All construction staging and laydown areas would be located within the Project site. Common areas would be used staging and laydown until such time as the final improvements are being implemented.

Standard construction Best Management Practices (BMPs) would be implemented to reduce construction-related effects such as fugitive dust, noise, and storm water runoff, as specified in greater detail in the hydrology and water quality and noise analyses for this Project, which are included in Sections 4.9, Hydrology and Water Quality, and 4.11, Noise.

Utility Improvements

The Project would require the extension of distribution lines for all utilities to serve the Project, as described below.

Potable Water

The Project would include the construction of a new 8-inch water main, which would connect to the existing potable water mainline within Simon Ranch Road near the Project's existing driveway. Also, a 12-inch water main would be installed connecting from the northern Project

boundary to the existing water main within the Project site. The off-site portion of this water main would occur within an existing easement. Within the Project site, the new 12-inch water main would occur within a proposed 20-foot-wide utility easement. As shown in Exhibit 3-5, Preliminary Grading Plan, for back-up purposes if the 12-inch water main is determined to be infeasible during final design, the Project would instead construct an alternate water connection to an existing 6-inch water main offsite to the north of the Project site. Due to the design and extension of the proposed on-site water facilities, the Project would include the vacation of a 10-foot wide easement to Tustin Waterworks for pipelines as it will no longer be necessary.

Wastewater

The utility improvements would include the construction of a new 8-inch wastewater line, which would connect to an existing private wastewater line that leads from the Project site to the south in an existing wastewater easement and then connects to the wastewater main within Pavillion Drive about 600 feet south of Simon Ranch Road. Wastewater flows are ultimately conveyed to an Irvine Ranch Water District wastewater line on Lambert [street].

Electricity and Natural Gas

The Project would also connect to existing electrical and natural gas facilities via a joint trench that would be located within the Project's driveway. The trench would be dug to connect to existing electricity and gas facilities within Pavilion Drive just beyond the Project driveway.

Project Phasing and Schedule

Project demolition, grading, and infrastructure installation is planned to occur in a single phase. Then, proposed residential units would be constructed in three phases with approximately 12 units completed in each phase of development.

Construction would begin approximately two months after approval of the final improvement and construction plans and recordation of the vesting tentative tract map by the County of Orange. The Project is expected to be completed in 2024.

Project construction activities are anticipated to occur up to six days per week (i.e. Monday through Saturday). As described in more detail in Section 4.11, Noise, Project construction would be limited to Monday through Friday between 7 a.m. and 6 p.m., and on Saturday (between 9 a.m. and 5 p.m.). No construction would occur on Sundays or during City-observed federal holidays. In addition, per County of Orange regulations and in compliance with the County of Orange noise ordinance, the Project would include the use of mufflers, and would locate stockpiles away from residential areas.

3.6 DISCRETIONARY ACTIONS

Implementation of the Project would require permits or other forms of approval from public agencies or other entities prior to construction of the Project. Table 3-1, Public Agency Approvals, provides a summary of public agency approvals and recommendations that are expected to be required for the Project.

**TABLE 3-1
PUBLIC AGENCY APPROVALS**

Entity	Action
County of Orange	
Planning Commission	Certification of Final EIR No. 635. Approval of a Use Permit for a Planned Development for Planning Application PA 180034.
Subdivision Committee	Vesting Tentative Tract Map (VTTM18119) approval.
County Public Works (OCPW)	Water Quality Management Plan; demolition permit; grading permit, building permits.
Orange County Fire Authority (OCFA)	
OCFA	Fire Protection Plan approval
East Orange County Water District (EOCWD)	
EOCWD	Approval of the design for the wastewater lines.
City of Tustin	
City of Tustin Water Services Department	Approval of the design for the domestic water service.

Zoning

The zoning is A1 (General Agriculture) which allows a maximum residential density of 0.25 dwelling units per acre (4-acre minimum lot size). The General Plan designation is 1B Suburban Residential which allows residential densities from 0.5 to 18 dwelling units per acre. Therefore, due to this inconsistency, pursuant to Government Code section 65589.5(j)(4), a zoning change is not required for this Project. This code applies to housing projects that are consistent with the objective General Plan standards and criteria but occur on sites where the zoning for the Project site are inconsistent with the General Plan.

Use Permit

A Use Permit is required for the Project to allow for the development of a planned development (PD). Section 7-9-126.2 of the County of Orange Code of Ordinances provide the purpose of a Use Permit (County of Orange 2021c):

The purpose of a Use Permit is to provide for the public review of detailed plans for a proposed use during a public hearing held by either the Zoning Administrator or Planning Commission. Uses that require a Use Permit are regarded as having a relatively moderate to high potential for adverse impacts on the subject site or surrounding community due to the nature of magnitude of the use vis-a-vis the sensitivity of the subject site or surrounding community.

Vesting Tentative Tract Map

A Vesting Tentative Tract Map (VTTM 18119) would be processed to allow for the development of 37 units comprised of 34 single-family townhome units and 3 single-family detached units within a total of ten lots. The VTTM is depicted in Exhibit 3-4, Vesting Tentative Tract Map (VTTM).

3.7 REFERENCES

- Department of General Services, Building Standards Commission. 2018. 2019 California Green Building Standards Code (CALGreen). Sacramento, CA: CBSC. <https://www.hcd.ca.gov/building-standards/calgreen/index.shtml>
- Orange, County of,. 2021a (October 7, last accessed). County of Orange General Plan. <https://ocds.ocpublicworks.com/service-areas/oc-development-services/planning-development/codes-and-regulations/general-plan>
- . 2021b (June 17). Notice of Preparation (NOP). Santa Ana, CA: County of Orange. <https://ceqanet.opr.ca.gov/2021060400>
- . 2021c (October 7, last accessed). Orange County, California – Code of Ordinances. Santa Ana, CA: County of Orange. https://library.municode.com/ca/orange_county/codes/code_of_ordinances
- Tustin, City of. 1997 (November). East Tustin Specific Plan. Tustin, CA: Tustin. <https://www.tustinca.org/DocumentCenter/View/704/East-Tustin-Specific-Plan-PDF?bidId=>

4.0 IMPACT ANALYSIS

In accordance with Sections 15125 and 15126(a) to (c) of the California Environmental Quality Act (CEQA) Guidelines, this section of the Environmental Impact Report (EIR) analyzes those environmental topics where the Project could result in “potentially significant impacts.” The County of Orange Public Works, OC Development Services (County) has determined that the EIR addresses all environmental topics with potential to result in significant effects, with the exception of Agricultural and Forestry Resources and Mineral Resources topics, which are discussed in Section 2.5, Effects Not Found To Be Significant. This EIR will evaluate the following environmental resource topics with their respective section numbers:

- Aesthetics (4.1)
- Air Quality (4.2)
- Biological Resources (4.3)
- Cultural Resources (4.4)
- Energy (4.5)
- Geology and Soils (4.6)
- Greenhouse Gas Emissions (4.7)
- Hazards and Hazardous Materials (4.8)
- Hydrology and Water Quality (4.9)
- Land Use and Planning (4.10)
- Noise (4.11)
- Population and Housing (4.12)
- Public Services (4.13)
- Recreation (4.14)
- Transportation (4.15)
- Tribal Cultural Resources (4.16)
- Utilities and Service Systems (4.17)
- Wildfire (4.18)

Organization

Each topical section includes the following subsections:

- Existing Conditions;
- Regulatory Setting;
- Thresholds of Significance;
- Impact Analysis;
- Cumulative Impact Analysis;
- Mitigation Program (if applicable); and a finding of significance after mitigation (if applicable).

Local CEQA Procedures

Section 15064.7 of the CEQA Guidelines addresses thresholds of significance and encourages each public agency to develop thresholds of significance through a public review process. The County adopted the 2020 Local CEQA Procedures Manual in November 2020 to set forth the local policies and procedures of the County for the implementation of CEQA. It is meant to be used in conjunction with the CEQA Statutes and the CEQA Guidelines, as both amended.

Thresholds of Significance

In accordance with CEQA and the CEQA Guidelines, the analysis and significance thresholds used in this EIR have been derived from several sources, including the General Plan standards and applicable regulatory standards.

On November 17, 2020, the County of Orange adopted “Guidelines for Evaluating Vehicle Miles Traveled under CEQA” (VMT Guidelines), which is provided herein as Appendix N (County of Orange 2020). The VMT Guidelines included CEQA thresholds of significance for vehicle miles traveled (VMT). Other than the VMT guidelines, the County of Orange has not adopted specific thresholds of significance and rather relies upon the specific questions relating to the topical environmental factors listed in Appendix G to the CEQA Guidelines to assist in the determination of whether an identified impact is potentially significant. The County of Orange may, depending on the circumstances of a particular project, use specific thresholds of significance on a case-by-case basis as provided by CEQA Guidelines Section 15064.7(b).

In evaluating the potential impacts associated with the Project, the EIR, in addition to the mitigation measures in the EIR, identifies a number of components that will serve to avoid or minimize impacts. These measures have been incorporated into the Mitigation Program presented in this EIR and will be tracked in the Mitigation Monitoring and Reporting Program (MMRP) that would be adopted in conjunction with the Project approval.

Where a potentially significant environmental effect has been identified, Project-specific mitigation measures and applicable County Standard Conditions have been included where feasible. Any mitigation measure, and timing thereof, is subject to the approval of the County. The three components of the Mitigation Program are described below.

- **Mitigation Measures.** Where a potentially significant environmental effect has been identified and is not reduced to a level considered less than significant through the application of standard conditions or regulatory requirements, Project-specific mitigation measures have been prepared and incorporated into the Project.
- **Standard Conditions.** OC Planning has prepared a list of “Standard Conditions of Approval” (County of Orange, 2022), representing permit conditions routinely imposed by the County on development projects in unincorporated areas of Orange County. Relative to each of the topical issues identified, relevant “Standard Conditions of Approval” are identified and, for the purpose of environmental review, are assumed to constitute a reasonable listing of “conditions” to be imposed on the proposed project. These Standard Conditions of Approval may be modified as they are applied to individual projects or created based on professional practice associated with other projects subject to County approval.

The County's "Standard Conditions of Approval" constitute "uniformly applicable development policies or standards (i.e., policies or standards adopted or enacted by a city or county or by a lead agency that reduce one or more adverse environmental effects) as defined in Section 15183.3(f)(7) of the CEQA Guidelines. Because not all the "Standard Conditions of Approval" formulated by the County are applicable to all development projects, only those "Standard Conditions of Approval" applicable to the proposed project have been identified in this document. Similarly, because other "Standard Conditions of Approval" may exist that are not identified in this document, should the proposed project be approved or conditionally approved, this listing may not be inclusive of all Standards of Approval that may be imposed by the County. The categorization of "Standard Conditions of Approval" as shown in this section is present for convenience only and does not limit the application of those "Standard Conditions of Approval" to other resources or topical issues to which they are also relevant.

Where deemed applicable by OC Planning, each of the "Standard Conditions of Approval" listed are assumed to constitute components of and incorporated into the "project description" and are not separate measures from the project itself. In the context of CEQA and the CEQA Guidelines, these "Standard Conditions of Approval" are not analogous to "mitigation measures" and are not, therefore, subject to the mitigation reporting and monitoring program obligations (Section 15097, CEQA Guidelines).

- **Regulatory Requirements.** Regulatory requirements (RRs) are based on local, State, or federal regulations or laws that are frequently required independently of CEQA review and also serve to offset or prevent specific impacts. Typical RRs include compliance with the provisions of the California Building Code, South Coast Air Quality Management District Rules, local agency requirements, and other regulations and standards.

4.0.1 CUMULATIVE IMPACTS

Approved and pending projects within approximately two miles of the Project site are listed in Table 4-1, Cumulative Projects List. It should be noted that, while the projects listed in Table 4-1, Cumulative Projects List, have been considered in the analysis, not all related projects would contribute to significant cumulative impacts for each topical area. The cumulative impact analyses in each topical area provides an evaluation of the cumulative projects that would contribute to that particular environmental topic's cumulative impacts. Some impacts are site-specific and would not compound the impacts associated with the Project. Additionally, in certain cases, short-term impacts would not contribute to cumulative impacts because the construction of the cumulative projects and the development of the Project would not occur within the same time frame or in proximity to each other.

**TABLE 4-1
CUMULATIVE PROJECTS LIST**

Name	City	Project Description	Distance from Project Site	Project Status
13751 & 13841 Red Hill Avenue Mixed Use Project	Tustin	The project includes the construction of a new, 4-story, vertical mixed-use project on a 3.38 acre site within the Red Hill Avenue Specific Plan area. The project will contain 137 residential units and 7,000 square feet (sf) of commercial retail space. The project will also include ten (10) flexible-format retail spaces (i.e. live-work units), 228 on-site parking spaces, and six (6) affordable housing units. On-site amenities include corner and retail plazas adjacent to Red Hill, gateway signage at San Juan Street & Red Hill Avenue, open air courtyards with enhanced paving, outdoor benches and tables, landscape planters, and public art.	2.05 miles	Planning Commission Public Hearing – July 27, 2021
"AT-HOME" HOME FURNISHING STORE TENANT IMPROVEMENT	Tustin	The project includes renovation (i.e. interior and exterior tenant improvements) to an existing retail building to accommodate a new, "At-Home" home furnishing store.	1.80 miles	Project Under Construction
Cowan Heights Residential Development Project	County of Orange	The project involves the demolition of an existing shed located on the project site and construction of 22 detached single-family homes at a density of approx. 3.6 units per acre. The proposed project would have a zoning of 10,000 sf average lot size. The project conforms to the current General Development Plan (GDP) of suburban residential; however, a zone change would be required from AR to PC or Planned unit development. The 22 single family units would be two stories in height.	2.03 miles	Project Under Construction

**TABLE 4-1
CUMULATIVE PROJECTS LIST**

Name	City	Project Description	Distance from Project Site	Project Status
Crawford Canyon Park and Crawford Canyon Sidewalk Extension Project	County of Orange	The project consists of the development of Crawford Canyon Park, a 2.5-acre neighborhood park, located at the northwest corner of Newport Avenue and Crawford Canyon Road situated in North Tustin. The project would also include a sidewalk extension, consisting of approximately 630 feet of sidewalk construction along the north side of Newport Avenue beginning across from Hyde Park Drive proceeding easterly and approximately 815 feet of sidewalk construction along the west side of Crawford Canyon Road from the northeasterly end of the Park Site to Country Haven Lane.	1.90 miles	Final Design, Procurement of Contractor
Clearwater at North Tustin	County of Orange	The project includes the development of a 100-unit Senior Living Facility consisting of 72 assisted living units and 28 memory care units.	1.2 miles	Construction is Underway. The facility is partially complete and taking reservations for upcoming units.
Brier Lane Subdivision	County of Orange	The project is subdivision of 2.49 acres for 5 single-family detached lots with a minimum area of 20,000 (sf) in the unincorporated North Tustin area. The two front lots fronting on Brier Lane would have driveway access from Brier Lane; and the other three lots would be accessed by a proposed private cul-de-sac street that may be gated. The new residences are anticipated to be two-story wood frame structures.	2.05 miles	Construction is complete.

**TABLE 4-1
CUMULATIVE PROJECTS LIST**

Name	City	Project Description	Distance from Project Site	Project Status
Peter’s Canyon Regional Park – General Development Plan and Resource Management Plan	County of Orange	The project is the implementation of a GDP and a Resource Management Plan (RMP), which provides guidance on overall future park development and resource management at Peters Canyon Regional Park. The GDP proposes improvements in seven areas of the park to enhance public access and recreation. These include improvements to existing trails and parking and development of new park facilities. The RMP will ensure long-term guidance on park resource management.	2.1 miles	The plan is being implemented.
Simon Ranch Reservoir and Booster Pump Station	Tustin	The project includes the following: replacing the existing Zone 1 Reservoir with a new reservoir at the same site; constructing a new Zone 3 pump station at the reservoir site; constructing replacement Zone 1 pipelines; and constructing replacement Zone 3 pipelines.	205 feet to the reservoir site	Began construction in April 2020, with completion of construction expected within 18 months.

Sources: County of Orange 2021; City of Tustin 2021.

4.0.2 REFERENCES

Orange, County of. 2022 (January 25, last accessed). Standard Conditions of Approval. Santa Ana, CA: County of Orange. <https://ocds.ocpublicworks.com/sites/ocpwocds/files/import/data/files/9024.pdf>—

———. 2021 (August, month approved by OC Planning). Cumulative Projects List. Santa Ana, CA: County of Orange.

———. 2020 Updated Transportation Implementation Manual. Santa Ana, CA: County of Orange. <https://ocds.ocpublicworks.com/sites/ocpwocds/files/2020-12/Transportation%20Implementation%20Manual%20-%202020.pdf>

Tustin, City of. 2021 (August 3, access date). Cumulative Projects List. Tustin, CA: City of Tustin. Current Projects (webpage). Tustin, CA: City of Tustin. <https://www.tustinca.org/1080/Current-Projects>

4.1 AESTHETICS

4.1.1 EXISTING CONDITIONS

The Project site is located at 11782 Simon Ranch Road, in the North Tustin area of unincorporated Orange County, California. The Project site consists of 5.88 acres and is currently developed with the Tustin Hills Racquet and Pickleball Club. Single family residential land uses surround the Project site in all directions. The rear yards of adjacent residences abut the Project site on all sides. Vehicular access to the Tustin Hills Racquet and Pickleball Club is located at the intersection of Pavillion Drive and Simon Ranch Road. The site is currently developed with eight tennis courts, 12 pickleball courts, a swimming pool with two spas, a lawn/outdoor event area, and two single-story buildings with banquet and meeting rooms and administrative offices. The facility is served by a paved parking area. The Project site does not support any natural open space or native vegetation. Mature ornamental landscaping occurs throughout the site, which includes, but is not limited to, palm trees, pepper trees, pine trees, hedges, and turf. The existing Tustin Hills Racquet and Pickleball Club on the Project site generates intermittent nighttime lighting because events, such as weddings, are sometimes held in the evening hours up to 10:00 PM. In addition, the tennis and pickleball courts are lit most nights until 10:00 PM and security lighting is provided throughout the site and in the surface parking lot during existing conditions. Near the Project site there are other sources of nighttime lighting including some limited street lights on the streets adjacent to the Project site, as well as outdoor lighting installed on nearby residential properties around the Project site.

4.1.2 REGULATORY SETTING

State

California Department of Transportation State Scenic Highway Program

The California Scenic Highway Program, created in 1963 by the California legislature, is managed by the California Department of Transportation (Caltrans). The goal of the program is to preserve and protect scenic highway corridors from changes that would negatively impact the aesthetic quality of lands that are adjacent to highways. Caltrans defines a scenic highway as any freeway, highway, roadway, or other public right-of-way that passes through an area of valuable scenic quality. Qualification for designation as a State Scenic Highway is based on vividness, intactness, and unity. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated.

The nearest officially designated State Scenic Highway is State Route (SR) 91 (Riverside Freeway), located approximately 7.5 miles to the north. Additional portions of SR-91 and SR-71 are located greater than 7.5 miles from the Project site, which are eligible for listing on the State Scenic Highway system.

Local

County of Orange General Plan

The County of Orange General Plan is the long-range guide for growth and development in the County (County of Orange 2021). The County of Orange General Plan contains nine elements, one of which is the Resources Element with the objective to provide direction regarding the conservation and management of natural resources. The Resources Element is comprised of six components including Natural, Energy, Water, Air, Open Space, and Cultural-Historical Resources.

The Resources Element identifies the County of Orange's natural resources, including aesthetics and visual resources, and policies for their preservation, development, and wise use. This element also addresses water supply (as a resource) and water quality (includes bay and ocean quality and potable drinking water), air quality, terrestrial and marine biological resources, open space, archaeological and paleontological resources, mineral resources, visual resources, and energy.

The Resources Element identifies major landforms and waterways as aesthetic resources within the County of Orange. More specifically, the Resources Element calls out scenic areas as including views of Saddleback in the Santa Ana Mountains; ocean views of Santa Catalina Island; and ocean views from State highways. Specific turnouts are also mentioned with ocean views in the County of Orange, including turnouts along Ortega Highway, Chapman Avenue, and Santiago Canyon Road, and coastal views from parks on the coastal bluffs at San Clemente and Corona Del Mar State Beach Parks, Dana Point, and Laguna Beach. None of these visual resources would be substantially affected by the Project due to their distance from the Project site, and due to the fact that any views of these resources, namely the Santa Ana Mountains, are already intermittent and disrupted by the surrounding residential community.

4.1.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria, included for analysis in this EIR, are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, and will be used to determine the significance of potential aesthetics impacts. Except as provided in Public Resource Code Section 21099, impacts to aesthetics would be significant if the Project would:

- a) Have a substantial adverse effect on a scenic vista.
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.
- d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

4.1.4 IMPACT ANALYSIS

a) Would the Project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. A scenic vista is generally defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. A substantial adverse effect to a scenic vista is one that degrades the view from a designated viewing location. According to the Open Space Component of the County of Orange General Plan Resources Element, open space within the County of Orange is a valuable resource and includes enhancing and protecting scenic vistas (County of Orange 2021). The General Plan does include sites of specifically designated scenic vista points and provides goals and objectives to manage the County of Orange's landform resources. These landform resources, defined by the General Plan as "distinctive natural topographic features," are considered natural and aesthetic resources within the County of Orange. The Project site is located within an urbanized area, on the developed site of the existing Tustin Hills Racquet and Pickleball Club, surrounded by residential development on similar elevation. Per the Resources Element of the General Plan, "...the preservation of scenic vantage points (visual access) are limited to a few turnouts, along Ortega Highway, Chapman Avenue, and Santiago Canyon Road, and parks on the coastal bluff at San Clemente and Corona Del Mar State Beach Parks, Dana Point, and Laguna Beach." There are no designated scenic vistas or significant landforms on the Project site and surrounding areas. As such, no scenic vista would be impacted. As discussed above and described in the General Plan, the Project site and the surroundings are not designated resources that would be affected by the Project. Additionally, no landform resources are visible from the Project site. Therefore, the Project would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant, and no mitigation measures are either required or recommended.

b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Based on a review of the California Department of Transportation, California Scenic Highway Mapping System, the Project site is not near a designated or eligible State scenic highway (Caltrans 2021). The nearest designated State scenic highway is SR-91 (Riverside Freeway), located approximately 7.5 miles to the north. Due to intervening topography and development, the Project site is not visible from SR-91. Furthermore, the Project would not remove any rock outcroppings or historic buildings. Existing trees and other vegetation within the Project site would be removed; however, these trees are not within or visible from a state scenic highway. Therefore, the Project would have no impact related to scenic resources within a State scenic highway, no significant impacts would occur, and no mitigation measures are either required or recommended.

c) In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point)? If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The Project site is located in an urbanized area of the County of Orange pursuant to Section 21071 of the CEQA Guidelines and is surrounded by residential neighborhoods. Given that the Project site is located in an urbanized area, the analysis for this

threshold focuses on whether the Project would conflict with applicable zoning and other regulations governing scenic quality. The Project site is zoned as A1 “General Agricultural” District, which allows for residential development and does not contain any specific scenic regulations. As described in Section 7-9 30.2 of the County of Orange Code of Ordinances, single family homes and townhomes are principal permitted uses within the A1 zone. As stated in Section 7-9-30.3 of the County of Orange Code of Ordinances, the A-1 zone requires a minimum 4 acres per building site and allows no more than one single-family residence per building site (County of Orange 2021b). The Project site has a General Plan land use designation of Suburban Residential (1B) Communities, which allows for a density of 0.5 to 18 dwelling units per acre (du/ac). As discussed in Section 3.6, Discretionary Actions, the zoning for the Project site is inconsistent with the General Plan land use for the Project site. However, pursuant to the Housing Accountability Act, codified as Government Code section 65589.5(j)(4), a zoning change is not required for this Project. This code applies to housing projects that are consistent with the objective General Plan standards and criteria but occur on sites where the zoning for the Project site is inconsistent with the General Plan. During the County’s design review process, the Project has been reviewed to ensure compliance with applicable regulations related to scenic quality, including maximum building heights. More information related to Project consistency with plans, policies, and regulations is provided in Section 4.10, Land Use and Planning. Given that the Project would not conflict with applicable zoning and other regulations governing scenic quality, the Project would result in less than significant impacts related to this threshold, and no mitigation measures are either required or recommended.

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

Less than Significant Impact. Site lighting would be limited to exterior lighting associated with each unit and street lighting required for safety. An entry monument sign would be installed for the Project, which would include landscape lighting, as permitted and required by County of Orange regulations and standards. Low level way-finding lighting for pedestrians/community residents would be provided in the common and recreation areas of the community for safety. Street lighting would be provided at street intersections, and as required by the County of Orange regulations and standards, as shown in Exhibit 3-5, Preliminary Grading Plan. This would be consistent with the urbanized character of the area. All exterior lighting would be designed to minimize glare and light spillage onto adjacent properties (i.e., shielding of street lights). Consistent with current building code requirements and the County Standard Conditions of Approval (LG01), prior to issuance of a building permit a lighting plan would be submitted and approved by the Manager of Building and Safety.

The Project includes the removal of the existing pole-mounted, high intensity incandescent lighting that is used to illuminate the tennis and pickleball courts within the Project site during the evenings. The existing lighting results in light spillage on to surrounding properties.

The Project includes new fixtures that would result in lighting and visible glare from within the Project site. The Project would include low-level landscape and light emitting diode (LED) site lighting. Also, street lighting is proposed at approximately 12 locations along streets within the Project site. The Project would be required to implement Standard Condition LG01, detailed below as **SC AES-1**, which would ensure that all exterior lighting would be confined to the Project site and would avoid spillover lighting (i.e., light trespass) and spillover glare impacts to adjoining properties.

Furthermore, as shown in the Exterior Concepts provided as Exhibits 3-2a and 3-2b, the Project design does not include any highly-reflective building materials or paints that would result in significant glare that would be atypical of residences in the Project vicinity.

The Project would be constructed consistent with the County of Orange Noise Control Ordinance, which requires that all construction activities would occur between 7 a.m. and 8 p.m. on weekdays and Saturdays. Therefore, limited construction lighting during evening construction hours may be needed for the Project. Any construction lighting needed for evening work would be hooded and oriented towards active work areas within the Project site and would only occur for a limited time. Therefore, construction lighting would result in less than significant impacts.

As discussed above, lighting and glare resulting from Project construction and operation would not substantially adversely affect day or nighttime views in the area. Impacts would be less than significant, and no mitigation measures are either required or recommended.

4.1.5 CUMULATIVE IMPACTS

As described above, the Project would not result in significant adverse impacts related to scenic vistas, and the Project would not damage scenic resources. Furthermore, the Project would not conflict with applicable zoning and other regulations governing scenic quality. The Project would remove existing vegetation, but would include replacement landscaping plantings throughout the development including in common areas and residential parcels. The Project would introduce new sources of lighting that would be different from the existing night lighting in the Project site; however, as required by **SC AES-1**, all new street lights and other exterior lighting would be hooded and oriented to reflect away from adjoining properties and streets. Also, the Project would include the removal of outdoor lighting that currently exists as a nighttime light source within the Project site. Furthermore, the Project would not result in substantial glare-related affects.

Projects considered in the cumulative impact analysis consist of five projects within unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0, Impact Analysis. The Simon Ranch Reservoir and Booster Pump Station project (Booster Pump Station project) is the only cumulative project in close enough proximity to the Project to potentially contribute to a cumulative aesthetic impact. The Project would be constructed within a few years of the Booster Pump Station project having been constructed, which would result in ongoing views of construction at two different sites for viewers from public vantage points including views from Valhalla Drive and Outlook Lane. These views of active construction sites from public and private vantages would not constitute a significant cumulative impact pursuant to CEQA given neither project would substantially adversely affect scenic vistas; neither project would substantially damage scenic resources; and neither project would conflict with applicable zoning and other regulations governing scenic quality. Both projects would result in the addition of lighting, which would collectively result in an incremental increase in outdoor lighting in the area surrounding the Project site. These projects would also include the addition of windows that may result in minor glare-related impacts similar to other residential developments. No substantial cumulative impacts would occur regarding lighting would occur since any outdoor lighting added as part of either cumulative project would be required to be down-cast and hooded to minimize light trespass.

4.1.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

SC AES-1: County Standard Condition of Approval LG01:

Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, Building Permit Services.

Mitigation Measures

No significant impacts pertaining to aesthetics were identified; therefore, no mitigation measures are required.

4.1.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to aesthetics would be less than significant, and no mitigation measures are required or recommended.

4.1.8 REFERENCES

California Department of Transportation (Caltrans). 2021 (July 13, date accessed). California Scenic Highway Mapping System. Sacramento, CA: Caltrans. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>

Orange, County of. 2021 (August 2, last accessed). County of Orange General Plan. Santa Ana, CA: County of Orange, Development Services. <https://ocds.ocpublicworks.com/service-areas/oc-development-services/planning-development/codes-and-regulations/general-plan>

4.2 AIR QUALITY

4.2.1 EXISTING CONDITIONS

Climate and Meteorology

The Project site is located in the South Coast Air Basin (SoCAB), which includes all of Orange County and the urbanized portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is arid, with virtually no rainfall and abundant sunshine during the summer months. It has light winds and poor vertical mixing compared to the other large urban areas in the U.S. The combination of poor dispersion and abundant sunshine, which drives the photochemical reactions that form pollutants (such as ozone [O₃]) provide conditions especially favorable to the formation of smog. The SoCAB is bound to the north and east by mountains with maximum elevations exceeding 10,000 feet. The unfavorable combination of meteorology, topography, and emissions from the nation's second largest urban area results in the SoCAB having some of the worst air quality in the U.S.

Criteria Air Pollutants

Air quality is defined by ambient air concentrations of seven criteria air pollutants, which are a group of common air pollutants identified by the U.S. Environmental Protection Agency (USEPA) to be of concern with respect to the health and welfare of the general public. Federal and State governments regulate criteria pollutants by using ambient standards based on criteria regarding the health and/or environmental effects of each pollutant. These pollutants include nitrogen dioxide (NO₂); O₃; particulate matter, including both particles equal to or smaller than 10 microns in size (PM₁₀) and particles equal to or smaller than 2.5 microns in size (PM_{2.5}); carbon monoxide (CO); sulfur dioxide (SO₂); and lead. Particulate matter size refers to the aerodynamic diameter of the particle. A description of each criteria pollutant, including source types and health effects, is provided below.

Nitrogen Dioxide

Nitrogen gas, normally relatively inert (i.e., nonreactive), comprises about 80 percent of the air. At high temperatures (e.g., in combustion processes) and under certain other conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitrogen oxides (NO_x). Nitric oxide (NO), NO₂, and nitrous oxide (N₂O) are important constituents of NO_x. NO is converted to NO₂ in the atmosphere. Motor vehicle emissions are the main source of NO_x in urban areas.

NO₂ is a red-brown pungent gas and is toxic to various animals and to humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membranes, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations of NO₂ can suffer lung irritation and, potentially, lung damage. Epidemiological studies have also shown associations between NO₂ concentrations and daily mortality from respiratory and cardiovascular causes, and with hospital admissions for respiratory conditions.

While the National Ambient Air Quality Standards (NAAQS) only address NO₂, NO and NO₂ are both precursors in the formation of O₃ and PM_{2.5}, as discussed below. Because of this and the fact that NO emissions largely convert to NO₂, NO_x emissions are typically examined when assessing potential air quality impacts.

Ozone

O₃ is a secondary pollutant, meaning that it is not directly emitted. It is a gas that is formed when volatile organic compounds (VOCs) (also referred to as reactive organic gases) and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of VOC emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NO_x also form as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O₃ to form; as a result, ozone is known as a summertime air pollutant. Ground-level O₃ is not to be confused with atmospheric O₃ or the “ozone layer”, which occurs very high in the atmosphere and shields the planet from some ultraviolet rays. Ground-level O₃ is the primary constituent of smog. Because O₃ formation occurs over extended periods of time, both O₃ and its precursors are transported by wind, and high O₃ concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when ozone levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level ozone exposure to a variety of problems, including the following:

- lung irritation that can cause inflammation much like a sunburn;
- wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities;
- permanent lung damage to those with repeated exposure to ozone pollution; and
- aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis.

Particulate Matter

Particulate matter includes both aerosols and solid particles of a wide range of size and composition. Of particular concern are PM₁₀ and PM_{2.5}. Particulate matter tends to occur primarily in the form of fugitive dust. This dust appears to be generated by both local sources and by region-wide dust during moderate to high wind episodes. These regional episodes tend to be multi-district and sometimes interstate in scope. The principal sources of dust in urban areas are from grading, construction, disturbed areas of soil, and dust entrained by vehicles on roadways.

PM₁₀ is generally emitted directly as a result of mechanical processes that crush or grind larger particles or from the re-suspension of dusts, most typically through construction activities and vehicular travels. PM₁₀ generally settles out of the atmosphere rapidly and is not readily transported over large distances.

PM_{2.5} is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants including NO_x, sulfur oxides (SO_x), and VOCs. PM_{2.5} can remain

suspended in the atmosphere for days and/or weeks and can be transported long distances, as many as several hundred miles.

The principal health effects of airborne particulate matter are on the respiratory system. Short-term exposure, lasting several days or weeks, to high PM_{2.5} and PM₁₀ levels is associated with premature mortality and increased hospital admissions and emergency room visits; increased respiratory symptoms are also associated with short-term exposure to high PM₁₀ levels. Long-term exposure, lasting years to decades, to high PM_{2.5} levels is associated with premature mortality and development of chronic respiratory disease. According to the USEPA, some people are much more sensitive than others to breathing PM₁₀ and PM_{2.5}. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

Carbon Monoxide

CO is a colorless and odorless gas which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches; aggravate cardiovascular disease; and impair central nervous system functions.

CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations are typically found near crowded intersections; along heavily used roadways carrying slow-moving traffic; and at or near ground level. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (i.e., up to 600 feet or 185 meters) of heavily traveled roadways.

Sulfur Dioxide

SO_x constitute a class of compounds of which SO₂ and sulfur trioxide (SO₃) are of greatest importance. Ninety-five percent of pollution-related SO_x emissions are in the form of SO₂. SO_x emissions are typically examined when assessing potential air quality impacts of SO₂. The primary contributor of SO_x emissions is fossil fuel combustion for generating electric power. Industrial processes, such as nonferrous metal smelting, also contribute to SO_x emissions. SO_x is also formed during combustion of motor fuels; however, most of the sulfur has been removed from fuels, greatly reducing SO_x emissions from vehicles.

SO₂ combines easily with water vapor, forming aerosols of sulfurous acid (H₂SO₃), a colorless, mildly corrosive liquid. This liquid may then combine with oxygen in the air, forming the even more irritating and corrosive sulfuric acid (H₂SO₄). Peak levels of SO₂ in the air can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures, lasting years to decades, to high levels of SO₂ gas and particles cause respiratory illness and aggravate existing heart disease. SO₂ reacts with other chemicals in the air to form tiny sulfate particles which are measured as PM_{2.5}.

Lead

Lead is a stable compound, which persists and accumulates both in the environment and in animals. In humans, it affects the body's blood-forming (or hematopoietic), nervous, and renal systems. In addition, lead has been shown to affect the normal functions of the reproductive, endocrine, hepatic, cardiovascular, immunological and gastrointestinal systems, although there is significant individual variability in response to lead exposure. In general, an analysis of lead is limited to projects that emit significant quantities of the pollutant (i.e., lead smelters) and are not applied to residential projects.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. TACs may be emitted from a variety of common sources, including motor vehicles, gasoline stations, dry cleaners, industrial operations, painting operations, and research and teaching facilities. The USEPA uses the term "hazardous air pollutants" for TACs.

TACs are different than the criteria pollutants previously discussed in that ambient air quality standards have not been established for them. TACs occurring at extremely low concentrations may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic (i.e., cancer) risk, chronic (i.e., of long duration), and acute (i.e., severe but of short duration) adverse effects on human health. Diesel particulate matter (diesel PM) is a TAC and is responsible for the majority of California's known cancer risk from outdoor air pollutants.

Existing Air Quality

Regional Attainment Status

Based on monitored air pollutant concentrations, the USEPA and the California Air Resources Board (CARB) designate an area's status in attaining the NAAQS and California Ambient Air Quality Standards (CAAQS), respectively, for the criteria pollutants. Table 4.2-1, Attainment Status of Criteria Pollutants in the South Coast Air Basin, provided below summarizes the attainment status in the SoCAB for the criteria pollutants.

**TABLE 4.2-1
ATTAINMENT STATUS OF CRITERIA POLLUTANTS
IN THE SOUTH COAST AIR BASIN**

Pollutant	State	Federal
O ₃ (1 hour)	Nonattainment	No standard
O ₃ (8 hour)		Extreme Nonattainment
PM ₁₀	Nonattainment	Attainment/Maintenance
PM _{2.5}	Nonattainment	Moderate Nonattainment
CO	Attainment	Attainment/Maintenance
NO ₂	Attainment ^a	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Attainment	Attainment/Nonattainment ^b
All others	Attainment/Unclassified	No Standards

O₃: ozone; PM₁₀: particulate matter 10 microns or less in diameter; PM_{2.5}: particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO₂: nitrogen dioxide; SO₂: sulfur dioxide.

^a The SoCAB is designated as attainment for NO₂ for all areas except for the California 60 portion of the freeway, in Los Angeles County, which is designated as nonattainment.

^b The Los Angeles County portion of the SoCAB is designated nonattainment for lead; the remainder of the SoCAB is designated attainment.

Source: CARB 2019; USEPA 2021.

Local Air Quality

As discussed previously, the Project site is located in the SoCAB. Air quality in the SoCAB is regulated by the USEPA, CARB, and the South Coast Air Quality Management District (SCAQMD). Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although USEPA regulations may not be superseded, both State and local regulations may be more stringent. The Southern California Association of Governments (SCAG) is an important partner to the SCAQMD and produces estimates of anticipated future growth and vehicular travel in the basin that are used for air quality planning. The SCAQMD has divided the SoCAB into 38 source receptor (air monitoring) areas (SRAs), with a designated ambient air monitoring station representative of each area. The Project site is located within the Inland Orange County general forecast area, and specifically, within SRA 17, Central Orange County (SCAQMD 1999).

The Project site is in the area represented by measurements made at the Anaheim Monitoring Station, located approximately 10.6 miles northwest of the Project site. The monitored air quality data is from 2018 to 2020, and a comparison to the NAAQS and CAAQS from the Anaheim Monitoring Station is presented in Table 4.2-2, Air Pollutant Levels Measured at the Anaheim Monitoring Station.

**TABLE 4.2-2
AIR QUALITY MEASUREMENTS AT THE ANAHEIM MONITORING STATION**

Pollutant	California Standard	National Standard	Year	Max. Level ^a	State Standard Days Exceeded ^b	National Standard Days Exceeded ^{b, c}
O ₃ (1 hour)	0.09 ppm	None	2018	0.112	1	0
			2019	0.096	1	0
			2020	0.142	6	2
O ₃ (8 hour)	0.070 ppm	0.070 ppm	2018	0.071	1	1
			2019	0.082	1	1
			2020	0.098	16	15
PM ₁₀ (24 hour)	50 µg/m ³	150 µg/m ³	2018	94.6	12.0	0
			2019	127.1	24.4	0
			2020	74.5	-	-
PM ₁₀ (AAM)	20 µg/m ³	None	2018	27.2	N/A	N/A
			2019	21.9	N/A	N/A
			2020	23.9	N/A	N/A
NO ₂ (1 Hour)	0.18 ppm	0.100 ppm	2018	0.066	0	0
			2019	0.059	0	0
			2020	0.070	0	0
NO ₂ (AAM)	0.030 ppm	0.053 ppm	2018	0.014	-	-
			2019	0.013	-	-
			2020	0.013	-	-
CO (8 hour)	9.0 ppm	9.0 ppm	2018	1.9	-	-
			2019	1.3	-	-
			2020	1.7	-	-
PM _{2.5} (24 Hour)	None	35 µg/m ³	2018	68.0	N/A	7
			2019	37.1	N/A	4
			2020	64.8	N/A	12
PM _{2.5} (AAM)	12 µg/m ³	15 µg/m ³	2018	11.02	N/A	N/A
			2019	9.32	N/A	N/A
			2020	11.27	N/A	N/A

O₃: ozone; ppm: parts per million; PM₁₀: respirable particulate matter with a diameter of 10 microns or less; µg/m³: micrograms per cubic meter; AAM: annual arithmetic mean; NO₂: nitrogen dioxide; CO: carbon monoxide; PM_{2.5}: fine particulate matter with a diameter of 2.5 microns or less.

“-” indicates that the data are not reported or there is insufficient data available to determine the value. N/A indicates that there is no applicable standard.

^a California maximum levels were used.

^b For annual averaging times, a “Yes” or “No” response is given if the annual average concentration exceeded the applicable standard.

Source: SCAQMD 2021, CARB 2021.

Sensitive Receptors

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. These people include children, elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. The SCAQMD defines structures that house these persons or places where they gather (i.e., residences, schools, playgrounds, child-care centers, convalescent centers, retirement homes, and athletic fields) as “sensitive receptors.”

The area surrounding the Project site consists primarily of residential uses. The nearest sensitive receptors to the Project site are residential uses on all sides of the Project’s boundary, with the nearest receptors located as close as approximately 15-feet on all sides of the Project site.

Existing Emissions

The Project site is currently in use, with eight full sized tennis courts, twelve pickleball courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet spaces, meeting rooms and administrative offices for a total of approximately 10,000 square feet). The facility is served by a paved parking area that can accommodate approximately 127 cars. Existing emissions include those derived by area and mobile source emissions. Area sources include landscape maintenance equipment, consumer products, and architectural coatings used for routine maintenance. Consumer products (e.g., household cleaners, air fresheners, automotive products, and personal care products) emit VOCs. Mobile sources are the vehicles used by employees, residents, visitors, and vendors at the Project site.

4.2.2 REGULATORY SETTING

The federal, State, regional, and local regulations for criteria pollutants and TACs are discussed below.

Federal

The Federal Clean Air Act requires the adoption of NAAQS, which are periodically updated to protect the public health and welfare from the effects of air pollution. The USEPA is responsible for setting and enforcing the NAAQS for criteria pollutants. Primary standards set limits to protect public health, including the health of at-risk populations such as people with pre-existing heart or lung disease (such as asthmatics), children, and older adults. Secondary standards set limits to protect public welfare, including protection against visibility impairment as well as damage to animals, crops, vegetation, and buildings. Current federal standards are set for SO₂, CO, NO₂, O₃, PM₁₀, PM_{2.5}, and lead. NAAQS are shown in Table 4.2-3, California and National Ambient Air Quality Standards.

The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives.

Specific geographic areas are classified as either “attainment” or “nonattainment” areas for each pollutant based upon the comparison of measured data with the NAAQS. “Attainment” areas have concentrations of the criteria pollutant that are below the NAAQS, and a “nonattainment” classification indicates the criteria pollutant concentrations have exceeded the NAAQS. When an area has been reclassified from a nonattainment to an attainment area for a federal standard, the status is identified as “maintenance”, and there must be a plan and measures that will keep the region in attainment for the following ten years. Areas designated as “nonattainment” are required to prepare regional air quality plans, which set forth a strategy for bringing an area into compliance with the standards. These regional air quality plans, which are developed to meet federal requirements, are included in an overall program referred to as the State Implementation Plan (SIP). The SoCAB SIP Status and Orange County’s attainment status are described in Tables 4.2-1, Attainment Status of Criteria Pollutants in the South Coast Air Basin, and 4.2-3, California and National Ambient Air Quality Standards.

State

CARB also has established the CAAQS shown in Table 4.2-3, California and National Ambient Air Quality Standards, which are generally more restrictive than the NAAQS. CARB conducts research; compiles emissions inventories; develops suggested control measures; provides oversight of local programs; and prepares the SIP. For regions that do not attain the CAAQS, CARB requires the air districts to prepare plans for attaining the standards. CARB establishes emissions standards for motor vehicles sold in California, consumer products (e.g., hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Advanced Clean Cars

In January 2012, CARB approved the Advanced Clean Cars program, an emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and greenhouse gas (GHG) emissions with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, 2025 model year automobiles will emit 75 percent fewer smog-forming emissions and 34 percent fewer global warming gases than the average 2012 model year automobile.

Title 24 Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the California Code of Regulations) were established in 1978 in response to a legislative mandate to reduce California’s energy consumption. The current applicable standards are the 2019 Standards, effective January 1, 2020. The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Since using natural gas produces criteria pollutant emissions, a reduction in natural gas consumption results in a related reduction in air quality emissions.¹ Additional discussion of the Title 24 energy efficiency standards is included in Section 4.7, Greenhouse Gas Emissions. The 2019 standards require that there is sufficient onsite electricity generation to meet the annual electricity usage for low rise

¹ Because electricity is not generated on site, the emissions associated with electricity generation are not included in the emissions calculations.

residential buildings. The 2022 Energy Efficiency Standards are being developed and would improve upon the 2019 Energy Code for new construction of, and additions and alterations to, residential and nonresidential buildings. Proposed standards would have an effective date of January 1, 2023. The California Energy Commission (CEC) updates the standards every three years.

Title 24 Green Building Standards

The 2019 California Green Building Standards Code (Title 24, Part 6 of the California Code of Regulations), also known as the “CALGreen Code,” contains mandatory requirements and voluntary measures for new residential and nonresidential buildings (including buildings for retail uses, office uses, public schools, and hospitals) throughout California (CBSC 2018). Development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the CALGreen Code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction. The County of Orange Code of Ordinances adopts the CALGreen Code by reference with specific amendments.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy-efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduces energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles which, in turn, reduces pollutant emissions. Additional discussion of the CALGreen Code is included in Section 4.7, Greenhouse Gas Emissions.

**TABLE 4.2-3
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California ^a Standards	Federal Standards	
			Primary ^b	Secondary ^c
O ₃	1 Hour	0.09 ppm (180 µg/m ³)	-	-
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	AAM	20 µg/m ³	-	-
PM _{2.5}	24 Hour	-	35 µg/m ³	Same as Primary
	AAM	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
CO	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	-
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	-
NO ₂	AAM	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)	-
SO ₂	24 Hour	0.04 ppm (105 µg/m ³)	-	-
	3 Hour	-	-	0.5 ppm (1,300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	-
Lead	30-day Avg.	1.5 µg/m ³	-	-
	Calendar Quarter	-	1.5 µg/m ³	Same as Primary
	Rolling 3-month Avg.	-	0.15 µg/m ³	
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)		
<p>O₃: ozone, ppm: parts per million, µg/m³: micrograms per cubic meter, -: No Standard; PM₁₀: respirable particulate matter with a diameter of 10 microns or less, AAM: Annual Arithmetic Mean, PM_{2.5}: fine particulate matter with a diameter of 2.5 microns or less, CO: carbon monoxide, mg/m³: milligrams per cubic meter, NO₂: nitrogen dioxide, SO₂: sulfur dioxide, km: kilometer.</p> <p>^a <i>California Air Quality Standards:</i> California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded.</p> <p>^b <i>National Primary Standards:</i> The levels of air quality necessary, within an adequate margin of safety, to protect the public health.</p> <p>^c <i>National Secondary Standards:</i> The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.</p> <p>Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).</p> <p>Source: CARB 2016.</p>				

Regional

South Coast Air Quality Management District and Southern California Association of Governments

In the SoCAB, the SCAQMD is the agency responsible for protecting public health and welfare through the administration of federal and State air quality laws, regulations, and policies. Included in the SCAQMD's tasks are the monitoring of air pollution; the preparation of the Air Quality Management Plan (AQMP) for the SoCAB; and the promulgation of rules and regulations.

In the Project area, SCAG is the federally designated Metropolitan Planning Organization and the State-designated transportation planning agency for six counties: Riverside, San Bernardino, Los Angeles, Ventura, Imperial, and Orange.

The SCAQMD and SCAG are jointly responsible for formulating and implementing the AQMP for the SoCAB. SCAG's Regional Mobility Plan and Growth Management Plan form the basis for the land use and transportation control portion of the AQMP.

Air Quality Management Plans

The current regional plan applicable to the Project is the SCAQMD's Final 2016 AQMP. The SCAQMD is responsible for ensuring that the SoCAB meets the NAAQS and CAAQS by reducing emissions from stationary (area and point), mobile, and indirect sources. To accomplish this goal, the SCAQMD prepares AQMPs in conjunction with the SCAG, County transportation commissions, and local governments; develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

The 2016 AQMP was adopted on March 3, 2017, by the SCAQMD Governing Board. The 2016 AQMP evaluates integrated strategies and measures to meet the following NAAQS (SCAQMD 2017):

- 8-hour O₃ (75 parts per billion [ppb]) by 2032²
- Annual PM_{2.5} (12 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$]) from 2021 to 2025
- 8-hour O₃ (80 ppb) by 2024
- 1-hour O₃ (120 ppb) by 2023
- 24-hour PM_{2.5} (35 $\mu\text{g}/\text{m}^3$) by 2019

² On October 1, 2015, the USEPA lowered the 8-hour O₃ standard to 0.070 ppm (70 ppb). The SIP (or AQMP) for the 70 ppb standard will be due 4 years after the attainment/nonattainment designations are issued by the USEPA, which is expected in 2017. Thus, meeting the 70 ppb standard will be addressed in a 2021 AQMP.

South Coast Air Quality Management District Rules

The Project would be required to comply with existing SCAQMD rules for the reduction of fugitive dust and criteria pollutant emissions. The following rules are most relevant to the Project:

SCAQMD Rule 201 requires a “Permit to Construct” prior to the installation of any equipment “the use of which may cause the issuance of air contaminants . . .” and Regulation II provides the requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate. Rule 219, Equipment not Requiring a Written Permit Pursuant to Regulation II, identifies “equipment, processes, or operations that emit small amounts of contaminants that shall not require written permits . . .”

SCAQMD Rule 402, Nuisance, states that a project shall not “discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

SCAQMD Rule 403, Fugitive Dust, requires actions to prevent, reduce, or mitigate fugitive particulate matter emissions. These actions include applying water or chemical stabilizers to disturbed soils; managing haul road dust by applying water; covering all haul vehicles before transporting materials; restricting vehicle speeds on unpaved roads to 15 miles per hour (mph); and sweeping loose dirt from paved site access roadways used by construction vehicles. In addition, Rule 403 requires that vegetative ground cover be established on disturbance areas that are inactive within 30 days after active operations have ceased. Alternatively, an application of dust suppressants can be applied in sufficient quantity and frequency to maintain a stable surface. Rule 403 also requires grading and excavation activities to cease when winds exceed 25 mph.

SCAQMD Rule 445 has been adopted to reduce the emissions of particulate matter from wood-burning devices and prohibits the installation of such devices in any new development.

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the VOC content in paints and paint solvents. Although this rule does not directly apply to the Project, it does dictate the VOC content of paints available for use during building construction.

SCAQMD Rule 1403, Asbestos Emissions from Demolition/Renovation Activities, specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.

Local

County of Orange

The Resources Element, one of nine elements of the County of Orange General Plan, contains official County of Orange policies on the conservation and management of resources (County of

Orange 2021). One component of the Resources Element is Air Resources. The policy of the Air Resources component is “To develop and support programs which improve air quality or reduce air pollutant emissions”. The Air Resources component includes 15 implementation programs. The responsibility for implementation is designated to the County of Orange, the Orange County Transportation Authority, and other public agencies.

4.2.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to air quality if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State Ambient Air Quality Standard;
- c) Expose sensitive receptors to substantial pollutant concentrations; or
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

South Coast Air Quality Management District CEQA Significance Thresholds

Table 4.2-4, SCAQMD Air Quality Significance Thresholds, presents the most current SCAQMD CEQA significance thresholds for daily emissions, toxic air contaminants, and criteria pollutants applicable to the Project. A project with daily emission rates, risk values, or concentrations below these thresholds is generally considered to have a less than significant effect on air quality.

**TABLE 4.2-4
SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS**

Mass Daily Thresholds (lbs/day)		
Pollutant	Construction	Operation
VOC	75	55
NOx	100	55
CO	550	550
PM10	150	150
PM2.5	55	55
SOx	150	150
Lead	3	3
Toxic Air Contaminants		
TACs ^a	Maximum Incremental Cancer Risk \geq 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas \geq 1 in 1 million) Chronic & Acute Hazard Index \geq 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO ₂ eq for industrial facilities	
Ambient Air Quality For Criteria Pollutants^b		

**TABLE 4.2-4
SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS**

Mass Daily Thresholds (lbs/day)	
NO ₂	1-hour average ≥ 0.18 ppm Annual average ≥ 0.03 ppm (state) and 0.0534 ppm (federal)
CO	1-hour average ≥ 20.0 ppm (State) 8-hour average ≥ 9.0 ppm (State/federal)
PM ₁₀	24-hour average ≥ 10.4 µg/m ³ (construction) 24-hour average ≥ 2.5 µg/m ³ (operation) Annual average ≥ 1.0 µg/m ³
PM _{2.5}	24-hour average ≥ 10.4 µg/m ³ (construction) 24-hour average ≥ 2.5 µg/m ³ (operation)
Sulfate	24-hour average ≥ 25.0 µg/m ³
Lead 30-day average Rolling 3-month average	1.5 µg/m ³ (state) 0.15 µg/m ³ (federal)
<p>lbs/day: pounds per day; VOC: volatile organic compound; NO_x: nitrogen oxides; CO: carbon monoxide; PM₁₀: respirable particulate matter with a diameter of 10 microns or less; PM_{2.5}: fine particulate matter with a diameter of 2.5 microns or less; SO_x: sulfur oxides; TAC: toxic air contaminants; SCAQMD: South Coast Air Quality Management District; GHG: greenhouse gas; MT/yr CO₂eq: metric tons per year of CO₂ equivalents NO₂: nitrogen dioxide; ppm: parts per million; µg/m³: microgram per cubic meter.</p> <p>^a TACs (carcinogenic and noncarcinogenic) ^b Ambient air quality threshold based on SCAQMD Rule 403.</p> <p>Source: SCAQMD 2019.</p>	

Methodology

California Emission Estimator Model

The Project emissions were calculated by using California Emissions Estimator Model (CalEEMod) version 2020.4.0 (CAPCOA 2021). CalEEMod is a computer program accepted by the SCAQMD that can be used to estimate criteria pollutant and GHG emissions associated with land development projects in California. CalEEMod has separate databases for specific counties and air districts. The Orange County database was used for the Project. The model calculates emissions of CO, SO₂, PM₁₀, PM_{2.5}, and the O₃ precursors VOC and NO_x. For this analysis, the results are expressed in pounds per day (lbs/day) and are compared with the SCAQMD mass daily thresholds described in Table 4.2-4, SCAQMD Air Quality Significance Thresholds, to determine impact significance for Project-related construction and operations phase emissions.

Specific inputs to CalEEMod include land uses and acreages. Construction input data include but are not limited to: (1) the anticipated start and finish dates of each construction activity (e.g., grading, building, and paving); (2) inventories of construction equipment to be used during each Project activity; (3) areas to be graded for development; (4) volumes of materials to be imported to and exported from the Project site; (5) areas to be paved; and (6) areas to be painted. The input data and assumptions are discussed in Section 4.2.4, Impact Analysis, below and are shown in notes on the CalEEMod data in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations. The CalEEMod model has the capability to calculate reductions in construction

emissions from the effects of dust control, off-road diesel-engine classifications, low-emission paints, and other selected measures.

Operational inputs to CalEEMod include (1) the specific year for Project operations; (2) vehicle trip generation rates; (3) land use and location characteristics that contribute to reductions in vehicle miles traveled; and (4) Project criteria for energy use. Output operational emissions data are separated into energy use, area sources, and mobile sources. The area sources are landscape maintenance equipment, consumer products, and architectural coatings used for routine maintenance. Consumer products (e.g., household cleaners, air fresheners, automotive products, and personal care products) emit VOCs. Mobile sources are the vehicles used by employees, residents, visitors, and vendors at the Project site. CalEEMod also includes data to calculate emissions reductions based on Project-specific characteristics and resulting from the implementation of mitigation measures (MMs).

Local Concentrations of Criteria Pollutants from On-Site Sources

The SCAQMD has developed an assessment method to evaluate local air quality conditions related to the exposure of persons to criteria pollutants generated on a project site. The SCAQMD developed localized significance threshold (LST) methodology and mass rate look-up tables that public agencies can use to determine whether or not a project may generate significant adverse localized air quality impacts. In addition to the mass daily emissions for regional thresholds, the SCAQMD established CEQA significance thresholds for ambient air quality to address localized impacts. The localized impact analysis is based on the concentration of a pollutant at a receptor site. The concentration standard is either the same as the NAAQS or CAAQS or is based upon a health-based standard. It is possible for a pollutant to have a significant impact regionally and a less than significant impact locally or vice versa. It is also possible for both impacts (i.e., regional and local) to be significant or less than significant. The look-up tables allow the evaluation of impacts without the complex task of dispersion modeling.

The LST methodology translates the concentration standards into emissions thresholds. The LST methodology is generally recommended to be limited to projects of five acres or less. For projects that exceed five acres, the five-acre LST look-up values can be used as a screening tool to provide a conservative analysis of localized impacts. Use of the LST method for projects that are larger than five acres provides a conservative analysis because equipment operating on a site that is larger than five acres allows for equipment emissions to be distributed over a larger area with a corresponding lower rate of emissions per area (Krause 2018). Although the Project site is larger than five acres, SCAQMD recognizes the efficacy of using the LST for larger sites if it is demonstrated that the calculated Project emissions would be less than the five-acre site emissions limits. If a project exceeds the LST look-up values, then the SCAQMD recommends that project-specific localized air quality modeling be performed (Krause 2018).

The LST methodology addresses NO₂, CO, PM₁₀, and PM_{2.5} emissions for construction and operational emissions. SO₂ and lead are not included because these pollutants are not generated or produced in negligible amounts in development projects. Ozone is not included because it is a secondary pollutant and local concentrations cannot be estimated from precursor emissions. For NO₂ and CO, the one-hour standards are used and receptors that could be exposed for one hour are considered. For PM₁₀ and PM_{2.5}, the 24-hour standards are used, and the receptors of interest are those where persons could be exposed for 24 hours, such as residences. Because emissions are based on the AAQS, exceedance of the LST represents a potential health impact. As

noted above, even if a standard is exceeded, the potential impact can be confirmed or found to be less than significant by a more detailed analysis.

4.2.4 IMPACT ANALYSIS

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

Less Than Significant Impact. Pursuant to the SCAQMD's CEQA Air Quality Handbook, a project would be inconsistent with the AQMP if it would (SCAQMD 1993):

- Create an increase in the frequency or severity of air quality violations; cause or contribute to new violations; delay attainment of air quality standards or
- Exceed the assumptions of the AQMP.

For the first criterion, the main purpose of an AQMP is to bring an area into compliance with the requirements of federal and State air quality standards. For a project to be consistent with the AQMP, the pollutants emitted from the project should not (1) exceed the SCAQMD CEQA air quality significance thresholds or (2) conflict with or exceed the assumptions used for preparing growth forecasts in the AQMP. A project with daily emission rates below the SCAQMD's established air quality significance thresholds (shown in Table 4.2-4, SCAQMD Air Quality Significance Thresholds) would have a less than significant effect on regional air quality. As shown in response to Threshold 4.2(b) below, pollutant emissions from the Project would be less than the SCAQMD thresholds; therefore, the Project meets the first criterion.

With respect to the second criterion, the Project was assessed as to whether it would exceed the assumptions in the AQMP. The SCAQMD's current air quality planning document is the 2016 Air Quality Management Plan (2016 AQMP). The 2016 AQMP is a regional and multiagency effort among the SCAQMD, CARB, SCAG, and the USEPA. The 2016 AQMP includes an analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The purpose of the 2016 AQMP is to set forth a comprehensive program to promote reductions in criteria pollutants, greenhouse gases, and toxic risk and efficiencies in energy use, transportation, and goods movement. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy; updated emission inventory methods for various source categories; and SCAG's latest growth forecasts (SCAQMD 2017). The 2016 AQMP includes strategies and measures necessary to meet the NAAQS.

The AQMP is based on projections of energy usage and vehicle trips from land uses designated by local governments that are within the SoCAB. The Project site is currently developed as the Tustin Hills Racquet and Pickleball Club and is designated by the County of Orange General Plan, Land Use Element Map (Amendment 14-02) as Suburban Residential (1B) Communities with 0.5 to 18 dwelling units per acre (du/ac). Because the proposed units with a density of 6.29 du/ac would not exceed the allowable 0.5 to 18 du/ac development density for suburban residential uses, the proposed Project would not necessitate a change in the General Plan land use designation and is within the assumptions of the 2016 AQMP. Given that the Project would not exceed growth assumptions in the AQMP, Project impacts related to this threshold would be less than significant, and no mitigation measures are either required or recommended.

b) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. Orange County is a nonattainment area for O₃, PM₁₀, and PM_{2.5}, as shown in Table 4.2-1, Attainment Status of Criteria Pollutants in the South Coast Air Basin. The Project would generate PM₁₀, PM_{2.5}, NO₂, and O₃ precursors (NO_x and VOC) during short-term construction and long-term operations.

Construction-Related Regional Impacts

During the construction period for the Project, air pollutants would be emitted by off-road and on-road construction equipment and worker vehicles, and fugitive dust would be generated during earth-moving and grading activities on site. Relevant elements of the Project related to the analysis of potential air quality construction impacts include (1) demolition of on-site tennis and pickleball courts, buildings, asphalt, and pavement, which would require export of demolition and construction debris; (2) site preparation activities to remove vegetation from the site; (3) on-site grading activities, which are expected to be balanced on-site; (4) trenching activities; (5) construction of 37 units; (6) architectural coating of dwelling units; and (7) paving activities for asphalt and pavement. Construction of the Project is anticipated to take approximately 2 years and 2 months. Grading and infrastructure installation would occur in a single phase while the proposed residential units would be constructed in three phases with approximately 12 units completed in each phase of development. There would be 12,000 cubic yards (cy) of cut and 12,000 cy of fill, and all soil would be balanced on site. Construction impacts would occur within the Project site boundaries, with the exception of off-site utility connections as detailed in the Utility Improvements discussion of Section 3.5, Project Theme. Construction staging would be located within the Project site.

Project construction emissions were estimated using the CalEEMod model described in Section 4.2.3, Thresholds of Significance. Project-specific input was based on Project improvements and construction information described in Section 3.5, Project Theme; additional data that was provided by the Applicant; engineering judgment; and default model settings to estimate reasonable worst-case conditions. The details of phasing, selection of construction equipment, areas to be paved, and other input parameters, including CalEEMod data, are included in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations, of this Environmental Impact Report (EIR). Construction related emissions include off-road equipment exhaust; on-road vehicle exhaust; fugitive dust from grading and vehicle travel on paved and unpaved roads; and VOCs from asphalt and architectural coatings. The model inputs reflect compliance with SCAQMD Rules 403 and 402. SCAQMD Rule 403, Fugitive Dust, requires measures such as watering and control of track-out from the site. Dust-control measures are included in the emissions calculations. Construction would also be required to comply with SCAQMD Rule 402, Nuisance, which prohibits the emission of quantities of air contaminants that could cause injury, detriment, nuisance, or annoyance to the public, or that endanger the comfort, repose, health or safety of the public. The Project would also comply with SCAQMD Rule 1113, Architectural Coatings, which places limits on the VOC content of coatings sold and used, and the model inputs reflect adherence with Rule 1113.

Estimated daily construction emissions for the Project are shown in Table 4.2-5, Estimated Maximum Daily Construction Emissions for the Project. The primary source of the VOC emissions

generated during construction would be off-gassing from architectural coatings activities. The primary source of NO_x emissions would be diesel engines from construction equipment during site preparation and grading activities. The principal source of CO emissions would be on-road vehicles from vendor and worker trips during concurrent grading, building, and paving activities. The primary source of PM₁₀ and PM_{2.5} emissions would be fugitive dust and on-road vehicles during the concurrent grading, building, and paving activities. As shown in Table 4.2-5, Estimated Maximum Daily Construction Emissions, Project construction mass daily emissions would be less than the SCAQMD’s thresholds for all criteria air pollutants.

**TABLE 4.2-5
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS**

Year	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2022	3	28	22	<1	4	2
2023	23	18	18	<1	4	2
2024	22	14	18	<1	1	1
<i>Maximum Emissions</i>	23	28	22	<1	4	2
<i>SCAQMD Thresholds (Table 4.2-4)</i>	75	100	550	150	150	55
Exceeds SCAQMD Thresholds?	No	No	No	No	No	No
lbs/day: pounds per day; VOC: volatile organic compound; NO _x : nitrogen oxides; CO: carbon monoxide; SO _x : sulfur oxides; PM ₁₀ : respirable particulate matter 10 microns or less in diameter; PM _{2.5} : fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District. Source: SCAQMD 2019 (thresholds); see Appendix C, Air Quality and Greenhouse Gas Emissions Calculations, for CalEEMod outputs.						

Operations-Related Regional Impacts

Operational emissions associated with the Project are comprised of area, energy, and mobile source emissions. The principal source of VOC emissions associated with the Project would result from area sources. Area and energy source emissions are based on CalEEMod assumptions for the specific land uses and size. Mobile source emissions are based on estimated Project -related trip generation forecasts, as detailed in the Project TIA (refer to Section 4.15, Transportation). The Project would generate 277 daily trips (Psomas 2021). The peak day operational emissions for VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} daily emissions that would be created from the Project’s long-term operation have been calculated and are summarized below in Table 4.2-6, Peak Daily Operational Emissions.

**TABLE 4.2-6
PEAK DAILY OPERATIONAL EMISSIONS**

Source	Emissions (lbs/day)*					
	VOC	NOx	CO	SOx	PM10	PM2.5
Area sources	11	1	13	0	1	1
Energy sources	<1	<1	<1	<1	<1	<1
Mobile sources	1	1	8	0	2	1
Total Operational Emissions*	12	2	21	<1	4	2
<i>SCAQMD Significance Thresholds (Table 4.2-4)</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Significant Impact?	No	No	No	No	No	No

lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

* Some totals do not add due to rounding.

Source: SCAQMD 2019 (thresholds); see Appendix C, Air Quality and Greenhouse Gas Emissions Calculations, for CalEEMod model outputs.

It should be noted that the emissions total in Table 4.2-6, Peak Daily Operational Emissions, includes all proposed operational emissions and does not include net reductions for existing emissions at the Project site. This results in a conservative estimation of the change in emissions that would occur with the removal of the existing uses and the development of the Project. For example, as detailed further in Section 4.15, Transportation, of this EIR, the Project would result in a net reduction of 72 trips when compared to existing conditions. The net reduction in trips would result in a reduction in vehicular emissions generated within the Project site. Despite not accounting for the net change in emissions associated with the development of the Project, the data provided in Table 4.2-6, Peak Daily Operational Emissions, shows that none of the analyzed criteria pollutants would exceed the regional emissions operational thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the Project, and no mitigation measures are either required or recommended.

Cumulative Construction Impacts

Construction activities associated with the Project would result in less than significant construction-related regional and localized air quality impacts, as quantified above in Table 4.2-5, Estimated Maximum Daily Construction Emissions, and Table 4.2-7, Localized Significance Threshold Construction Emissions (discussed under Threshold 4.2[c]), respectively. Short-term cumulative impacts related to air quality could occur if construction of the Project and other projects in the surrounding area were to occur simultaneously. In particular, with respect to local impacts, the consideration of cumulative construction particulate (PM10 and PM2.5) impacts is limited to cases when projects constructed simultaneously are within a few hundred yards of each other because of (1) the combination of the short range (distance) of particulate dispersion (especially when compared to gaseous pollutants), and (2) the SCAQMD's required dust-control measures, which further limit particulate dispersion from the Project site.

SCAQMD's policy with respect to cumulative impacts associated with the above-referenced pollutants and their precursors is that impacts that would be directly less than significant on a project level would also be cumulatively less than significant (SCAQMD 2003). Because the Project's construction emissions are below the SCAQMD's regional and local significance thresholds, local construction emissions would not be cumulatively considerable, and the impact would be less than significant, and no mitigation measures are either required or recommended.

Cumulative Operational Impacts

As shown in Table 4.2-6, Peak Daily Operational Emissions, , and Table 4.2-8, Localized Significance Thresholds Operational Emissions (under Threshold 4.2[c], below) operational emissions of VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} would be below the SCAQMD CEQA significance thresholds. Consistent with the approach described above (under Cumulative Construction Impacts), and based on the SCAQMD's "White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions" (SCAQMD 2003), the SCAQMD's policy on assessing cumulative impacts associated with the above-referenced pollutants and their precursors is that impacts that would be directly less than significant on a project level would also be cumulatively less than significant. Therefore, because the Project's operational emissions are less than the respective SCAQMD daily operational thresholds, the Project's operations phase activities would not contribute to a cumulatively considerable net increase of a pollutant for which the SoCAB is in nonattainment. Emissions of nonattainment pollutants or their precursors would not be cumulatively considerable and would be less than significant, and no mitigation measures are either required or recommended.

Cumulative Health Impacts

The SoCAB is designated as nonattainment for O₃, PM₁₀, and PM_{2.5}, which means that the background levels of those pollutants are, at times, higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (the elderly, children, and the sick). Therefore, when the concentrations of those pollutants exceed the standard, it is likely that some sensitive individuals in the population would experience health effects. These health effects are not identified for specific individual receptors nor does the air quality analyses within this section identify the magnitude of health effects. The regional analysis detailed above found that the Project would not exceed the SCAQMD regional significance thresholds for VOC and NO_x (ozone precursors), PM₁₀, and PM_{2.5}. As such, the Project would result in a less than significant cumulative health impact, and no mitigation measures are either required or recommended.

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. A significant impact may occur when a project would generate pollutant concentrations to a degree that would significantly affect sensitive receptors, which include populations that are more susceptible to the effects of air pollution than the population at large. Exposure of sensitive receptors is addressed for emissions from construction and operation of the Project. To address construction activities, the analysis below includes the following analyses: localized air quality impacts from construction and TACs, specifically diesel particulate matter (DPM) from on-site construction. To address operational emissions exposure to sensitive receptors, the analysis below discusses local air quality impacts from on-site

operations and CO hotspots. Operational, long-term TACs may be generated by some industrial land uses; commercial land uses (e.g., gas stations and dry cleaners); and diesel trucks on freeways. Residential uses do not generate substantial quantities of TACs and are therefore not addressed in this analysis.

Construction

Localized Criteria Pollutants from On-Site Construction

In addition to the mass daily emissions thresholds established by the SCAQMD, short-term local impacts to nearby sensitive receptors from on-site emissions of NO_x, CO, PM10, and PM2.5 are examined based on SCAQMD localized significance threshold (LST) methodology. To assess local air quality impacts for development projects without complex dispersion modeling, the SCAQMD developed screening (lookup) tables to assist lead agencies in evaluating impacts.

The LST method is recommended to be limited to projects that are five acres or less. For the purposes of an LST analysis, the SCAQMD considers receptors where it is possible that an individual could remain for 1 hour for NO₂ and CO exposure and 24 hours for PM10 and PM2.5 exposure. The emissions limits in the lookup tables are based on the SCAQMD's Ambient Air Quality Standards (SCAQMD 2016). The closest receptors to the Project site are single family residential uses adjacent to the Project's boundaries. The emissions thresholds are based on the worst-case condition of having receptors within 25 meters (82 feet) of the Project site. Receptors located further away would be exposed to less Project related emissions.

Table 4.2-7, Localized Significance Threshold Construction Emissions, shows the maximum daily on-site emissions for construction activities compared with the SCAQMD LSTs with receptors within 25 meters for a Project site area of 1 acre. The Project's maximum daily on-site emissions would occur during the demolition phase for NO_x and CO, and during the grading phase for PM10 and PM2.5. As shown in Table 4.2-7, Localized Significance Threshold Construction Emissions, the localized emissions from the Project would be below the thresholds, and no significant impacts would result to sensitive receptors, and no mitigation measures are either required or recommended.

**TABLE 4.2-7
LOCALIZED SIGNIFICANCE THRESHOLD CONSTRUCTION EMISSIONS**

Emissions and Thresholds	Emissions (lbs/day)			
	NO_x	CO	PM10	PM2.5
Project maximum daily on-site emissions	25.7	20.6	3.7	2.2
SCAQMD Localized Significance Threshold^a	81.0	485.0	4.0	3.0
Exceed threshold?	No	No	No	No
lbs/day: pounds per day; NO _x : nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter.				
^a Data is for SCAQMD Source Receptor Area 17, Central Orange County, 25-meter distance, 1 acre.				
Source: SCAQMD 2009 (thresholds); see Appendix C, Air Quality and Greenhouse Gas Emissions Calculations, for CalEEMod outputs.				

Toxic Air Contaminant Emissions from On-Site Construction

Construction activities would result in short-term, project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation (e.g., demolition, excavation, and grading); paving; building construction; and other miscellaneous activities. CARB identified DPM as a TAC in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, health risk assessments—which determine the exposure of sensitive receptors to TAC emissions—should be based on a 40-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project.

There would be relatively few pieces of off-road, heavy-duty diesel equipment in operation, and the total construction period would be relatively short when compared to a 40-year exposure period. Combined with the highly dispersive properties of DPM from equipment distributed across the Project site and additional reductions in particulate emissions from newer construction equipment, as required by USEPA and CARB regulations, construction emissions of TACs would not expose sensitive receptors to substantial emissions of TACs. The impact would be less than significant, and no mitigation measures are either required or recommended.

Operational

Localized Criteria Pollutants from On-site Operations

Project-related air emissions may have the potential to exceed the State and federal air quality standards in the vicinity of the Project even though these pollutant emissions may not be significant enough to create a regional impact to the SoCAB. Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, and on-site usage of natural gas appliances may have the potential to generate emissions that exceed the State and federal air quality standards in the vicinity of the Project even though these pollutant emissions may not be significant enough to create a regional impact to the SoCAB.

The local air quality emissions from on-site operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the LST Methodology. Table 4.2-8, Localized Significance Threshold Operational Emissions, shows the on-site operational emissions from area sources, energy usage, vehicles operating on-site, and the calculated emissions thresholds.

**TABLE 4.2-8
LOCALIZED SIGNIFICANCE THRESHOLD OPERATIONAL EMISSIONS**

On-Site Emission Source	Pollutant Emissions (lbs/day)			
	NOx	CO	PM10	PM2.5
Area Sources	0.7	12.8	1.4	1.4
Energy Sources	0.2	0.1	0.0	0.0
Mobile Sources ^a	0.0	0.4	0.0	0.1
Project's total maximum daily on-site emissions	0.9	13.3	1.4	1.5
SCAQMD Localized Significance Threshold^b	183.0	1,253.0	3.0	2.0
Exceeds Threshold?	No	No	No	No
lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter.				
^a Onsite vehicle emissions based on 5% of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the Project site.				
^b SCAQMD Source Receptor Area 17, Central Orange County, 25-meter distance, 5 acres.				
Source: SCAQMD 2009 (thresholds); see Appendix C, Air Quality and Greenhouse Gas Emissions Calculations, for CalEEMod outputs.				

The data provided in Table 4.2-8, Localized Significance Threshold Operational Emissions, shows that the ongoing operations of the Project would not exceed the local NOx, CO, PM10, and PM2.5 thresholds of significance. Therefore, operation of the Project would create a less than significant impact to sensitive receptors, and no mitigation measures are either required or recommended.

Combined Construction and Operational Emissions During Development

During Project development, initial phases of the Project would be occupied while construction would continue in future phases. In accordance with recent SCAQMD recommendations for all counties under its jurisdiction, a calculation of combined construction and operational emissions is provided for information purposes (SCAQMD 2015).

Project construction would occur in four general phases. For purposes of modeling air quality emissions, Phase 1 is assumed to be operational by the 4th quarter of 2023, with construction of Phase 2 beginning in the 4th quarter of 2023 and Phase 3 starting in 2024. For purposes of providing a conservative air quality analysis, the maximum construction emissions from 2023 and 2024 (Phases 2 and 3) are combined with the emissions calculated for full build-out of the Project in 2024. These emissions are compared to the SCAQMD's operational thresholds in Table 4.2-9, Estimated Annual Mid-Project Combined Emissions (lbs/day).

**TABLE 4.2-9
ESTIMATED ANNUAL MID-PROJECT COMBINED EMISSIONS
(LBS/DAY)**

Source	VOC	NO _x	CO	SO _x	PM10	PM2.5
Maximum Construction Emissions from 2023–2024 (Table 4.2-5)	23	28	22	<1	4	2
Full Build-out Operations (Table 4.2-6)	12	2	21	<1	4	2
Combined Mid-Project Emissions	35	29	43	<1	7	4
SCAQMD Operational Thresholds (Table 4.2-4)	55	55	550	150	150	55
Exceeds SCAQMD Thresholds?	No	No	No	No	No	No
lbs/day: pounds per day; VOC: volatile organic compounds; NO _x : nitrogen oxides; CO: carbon monoxide; SO _x : sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District. ^a Values shown are higher of either summer or winter emissions. Sources: SCAQMD 2019 (thresholds). Emissions calculations can be found in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations.						

As shown in Table 4.2-9, Estimated Annual Mid-Project Combined Emissions (LBS/DAY), combined construction and operations emissions would not exceed the operational emissions thresholds established by the SCAQMD. The finding of less than significant impacts for the combined construction and operations phases are consistent with the finding of less than significant impacts for emissions occurring solely for the operations phase of the Project.

Carbon Monoxide Hotspot

In an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations generally are found close to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (e.g., congested intersection) increases. Therefore, for purposes of providing a conservative worst-case impact analysis, CO concentrations typically are analyzed at congested intersection locations. If impacts are less than significant close to congested intersections, impacts also would be less than significant at more distant sensitive-receptor and other locations. Per the Traffic Analysis prepared for the Project, implementation of the Project would result in a net reduction of trips (-72 average daily trips), and a net reduction in AM peak hour trips (-1 trips) and PM peak hour trips (-20 trips) (Psomas 2021). Project-related traffic would result in less trips than existing uses, so the Project would not result in a significant impact related to CO hotspots. The Project would result in less than significant impacts related to CO hotspots, and no mitigation measures are either required or recommended.

Overall, as demonstrated in the analyses above, exposure of sensitive receptors to construction (including localized air quality impacts from construction and TACs) and operations (including localized air quality impacts from operations and CO hotspots), there would be less than significant impacts, and no mitigation measures are either required or recommended.

d) Would the Project result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)

Less than Significant Impact. Project construction would use equipment and activities that could result in other emissions (such as those leading to odors). However, these odors would be typical during construction and not extraordinarily objectionable. Potential construction odors include onsite construction equipment's diesel exhaust emissions as well as roofing, painting, and paving operations. There may be situations where construction activity odors could be noticed. However, these odors would be temporary and would dissipate rapidly from the source with an increase in distance. These odors would not be of such magnitude to cause a public nuisance. This is due to the relatively small number of equipment operating in proximity to each other for each construction phase, the short distance and area for which diesel exhaust occurs before it dissipates, and the transient nature of exposure at any one location due to most equipment being mobile. The SCAQMD has also not identified construction areas to be a significant source of odors in the list of sources that generate significant sources of odors. Therefore, the impacts would be short-term; would not affect a substantial number of people; and would be less than significant.

According to the SCAQMD CEQA Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project does not include any uses identified by the SCAQMD as being associated with odors, and therefore, would not likely produce objectionable odors. In addition, the Project uses are regulated from nuisance odors or other objectionable emissions by SCAQMD Rule 402, Nuisance. Rule 402 prohibits discharge from any source of air contaminants or other material which would cause injury, detriment, nuisance, or annoyance to people or the public. Overall, there would be a less than significant impact, and no mitigation measures are either required or recommended.

4.2.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As discussed under Threshold 4.2(b) above, the Project would result in less than significant temporary construction-related regional air quality impacts for all criteria pollutants. The construction emissions of the related projects listed in Table 4-1, Cumulative Projects List, of Section 4.0, Impact Analysis, would be constructed in compliance with applicable SCAQMD rules. SCAQMD's policy with respect to cumulative impacts associated with the above-referenced pollutants and their precursors is that impacts directly less than significant would also be cumulatively less than significant (SCAQMD 2003). Therefore, because of the minimal Project-related emissions relative to significance thresholds, and because of compliance with SCAQMD rules, the SCAQMD does not consider these emissions to be cumulatively considerable.

The SCAQMD considers impacts that are directly less than significant on a project-level to be also cumulatively less than significant. That is, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an

Environmental Assessment or EIR (SCAQMD 2003).³ As discussed under Threshold 4.2(c), the potential for exposure to substantial TAC concentrations from construction and operations does not rise to a level where a quantitative analysis is required for the Project. Therefore, the project-generated TAC emissions would not be cumulatively considerable, and the impact would be less than significant for the Project.

As discussed under Threshold 4.2(b) above, the Project would result in less than significant long-term operational air quality impacts for all criteria pollutants. As discussed under Threshold 4.2(b), because the SCAQMD air quality plans are regularly updated and consider the cumulative emissions of existing and projected development, it may be concluded that a project that conforms to the applicable air quality plans and does not have a direct air quality impact would not have a cumulative regional air quality impact. Therefore, the Project would have a less than significant cumulative air quality impact related to long-term regional emissions of all criteria pollutants. Operation of the Project would not result in significant unavoidable direct or cumulative impacts related to air quality, including cumulative impacts related to PM₁₀, PM_{2.5}, and O₃ for which the SoCAB is in nonattainment.

The analysis for local CO hotspot impacts under Threshold 4.2(b) demonstrated a less than significant impact is inherently a cumulative analysis, and the cumulative impact would be less than significant for the Project.

4.2.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to air quality were identified; therefore, no mitigation measures are required.

4.2.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to air quality would be less than significant, and no mitigation measures are required or recommended.

³ The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions.

4.2.8 REFERENCES

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4.3 BIOLOGICAL RESOURCES

4.3.1 EXISTING CONDITIONS

Survey Methods

A Psomas Senior Biologist conducted a reconnaissance-level biological survey on the Project site on March 30, 2021. All plant species observed were recorded in field notes. Plant species were identified in the field or collected for subsequent identification using keys in Baldwin et al. (2012). Nomenclature of plant taxa conform to the Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2021a) for special status species and the Jepson eFlora (Jepson Flora Project 2021) for all other taxa.

All wildlife species detected during the course of the survey were documented in field notes. Taxonomy and nomenclature for wildlife generally follows the Special Animals List (CDFW 2021b) for special status species and, for other species, Crother (2017) for amphibians and reptiles, the American Ornithological Society (AOS 2020) for birds, and the Revised Checklist of North American Mammals North of Mexico (Bradley, et al. 2014).

Prior to the survey, a literature review was conducted to identify special status plants, wildlife, and habitats that have been reported to occur in the vicinity of the survey area. Resources reviewed included the California Native Plant Society's (CNPS') Inventory of Rare and Endangered Plants (CNPS 2021) and the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CDFW 2021c). Database searches included the U.S. Geological Survey's (USGS) Tustin, Orange, Black Star Canyon, and El Toro 7.5-minute quadrangles.

The Project site location is depicted on the USGS' Orange, 7.5-minute topographic quadrangle. The Project site is generally between 280 and 230 feet above mean sea level and is located along the eastern portion of the Coastal Plain of Orange County, situated on the western flank of the foothills at the base of the Santa Ana Mountains northwest of Peters Canyon Wash. Soils mapped on the Project site include Balcom clay loam and Myford sandy loam (USDA NRCS 2021).

The Project site is located within the Central-Coastal Orange County Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP) Planning Area. The Central -Coastal NCCP/HCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in Orange County, primarily protecting coastal sage scrub habitat and the species that utilize this habitat. In addition, the Central-Coastal NCCP/HCP provides regulatory coverage for a total of 39 individual species; however, none of the species are expected to occur on site. The Central-Coastal NCCP/HCP covers 13 cities, including unincorporated areas of Orange County (CDFW 2020a).

The County of Orange does not have any specific policies or ordinances protecting other biological resources that apply to this portion of the County of Orange, such as a tree preservation ordinance.

Existing Conditions

The Project site is fully developed. Portions of the site are covered by ornamental vegetation. These areas generally consist of the interstitial areas between the buildings and other features within the Project site (such as the tennis and pickleball courts, parking lots, etc.), and along the perimeter of the Project site. The interstitial areas between the facilities are subject to frequent landscaping activities and are comprised of non-native, ornamental plant species, including sod grasses, Mexican fan palm (*Washingtonia robusta*), and freeway iceplant (*Carpobrotus edulis*). The Project site is generally encompassed by a narrow band of vegetation along the perimeter that is subject to less frequent landscaping activities. The northwestern, northeastern, and southwestern perimeter of the Project site contains rows of mature, ornamental tree species, predominantly comprised of Mexican fan palm and gum tree (*Eucalyptus* sp.). The southeastern perimeter is comprised of smaller, shrubby plant species, including bougainvillea (*Bougainvillea spectabilis*), mission fig (*Opuntia ficus-indica*), agave (*Agave* sp.), oleander (*Nerium oleander*), and laurel sumac (*Malosma laurina*), in addition to smaller tree species, such as carrotwood (*Cupaniopsis anacardioides*). A mature coast live oak tree (*Quercus agrifolia*) occurs onsite in the southern-most corner of the Project site perimeter. The plant species onsite are predominantly ornamental and a result of landscaping activities. No native or otherwise naturalized vegetation types occur on the Project site.

4.3.2 JURISDICTIONAL RESOURCES

No wetlands, riparian vegetation, or evidence of natural drainage features were observed on the Project site. Stormwater runoff is facilitated offsite via concrete V-ditches that extend along the northeastern and southeastern boundaries of the Project site. Storm water currently leaves the Project site via a concrete drainage ditch located in the most southerly corner of the site, which conveys flows for approximately 200 feet to a City of Tustin storm drain system.

4.3.3 WILDLIFE HABITAT

The Project site is fully developed and the wildlife habitat present is suitable only to urban-tolerant wildlife species.

No fish or amphibian species were observed during the survey and none are anticipated to occur on the Project site. One reptile, western fence lizard (*Sceloporus occidentalis*), was observed during the survey. Other common reptile species expected to occur include common side-blotched lizard (*Uta stansburiana*) and southern alligator lizard (*Elgaria multicarinata*).

Common bird species observed in the survey area include Anna's humming bird (*Calypte anna*), western bluebird (*Sialia mexicana*), black phoebe (*Sayornis nigricans*), song sparrow (*Melospiza melodia*), California towhee (*Melospiza crissalis*), spotted towhee (*Pipilo maculatus*), house wren (*Troglodytes aedon*), hooded oriole (*Icterus cucullatus*), Cassin's kingbird (*Tyrannus vociferans*), northern mockingbird (*Mimus polyglottos*), American crow (*Corvus brachyrhynchos*), lesser goldfinch (*Spinus [Carduelis] psaltria*), and house finch (*Haemorrhous mexicanus*).

One mammal, a rat (*Rattus* sp.), was directly observed during the survey. No other mammal or evidence of mammal was observed during the survey. Additional mammal species may also be present but were undetectable during the survey due, for instance, to nocturnal activity patterns.

Other common mammal species that may occur include coyote (*Canis latrans*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*), and house mouse (*Mus musculus*).

Wildlife Movement

Within large, open space areas where few or no man-made or naturally occurring physical constraints to wildlife movement are present, wildlife corridors may not yet exist. However, once open space areas become constrained and/or fragmented as a result of urban development or the construction of physical obstacles (e.g., roads and highways), the remaining landscape features or travel routes that connect the larger open space areas become corridors as long as they provide adequate space, cover, food, and water and do not contain obstacles or distractions (e.g., man-made noise, lighting) that would generally hinder wildlife movement. Alternatively, redevelopment and in-fill Projects within fully developed landscapes, such as those in urban and suburban environments, may not be located adjacent to any open space areas and local wildlife movement is limited only to urban-tolerant wildlife species (e.g., raccoon [*Procyon lotor*], opossum, and coyote) and urban-adapted bird species.

The Project site is located within a totally developed urban area surrounded by residential development and does not provide a linkage to undeveloped areas. Only urban-tolerant wildlife would be expected to use the site for wildlife movement.

Special Status Vegetation Types

The CDFW provides a list of vegetation Alliances, Associations, and Special Stands that are considered “sensitive natural communities” based on their rarity and threat (CDFW 2020b). No sensitive natural communities are located on the Project site.

Special Status Plants

Plants may be considered “special status” due to declining populations, vulnerability to habitat change, or restricted distributions. Several special status plant species have been reported in the vicinity of the Project based on the results of the literature review.

Despite special status plant species being reported in the greater vicinity, the Project site does not contain habitat suitable for any of these species and none have potential to occur on the Project site.

Special Status Wildlife

Wildlife may be considered “special status” due to declining populations, vulnerability to habitat change, or restricted distributions. Several special status wildlife species have been reported in the vicinity of the Project site.

Despite special status wildlife species being reported in the greater vicinity, the Project site contains habitat suitable for only one special status wildlife species: western yellow bat (*Lasiurus xanthinus*).

Western yellow bat is a California Species of Special Concern. This species is known to roost in large trees, particularly fan palm trees with unmaintained skirts. While many of the palm trees onsite have had their dead palm fronds removed, some still contain suitable skirts. Furthermore, the large eucalyptus trees support habitat suitable for western yellow bat and other more common tree roosting bats, including the hoary bat (*Aorestes cinereus*). Therefore, western yellow bat has potential to roost on the Project site.

Critical Habitat

Critical Habitat is designated by the U.S. Fish and Wildlife Services (USFWS), for the survival and recovery of species listed as Threatened or Endangered under the Federal Endangered Species Act (FESA). Based on a review of the online critical habitat mapper maintained by the USFWS' Environmental Conservation Online System (ECOS), the Project site is not located within any area mapped as Critical Habitat (USFWS 2022).

4.3.4 REGULATORY SETTING

Federal

Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (16 U.S.C. 1531 et. seq.), as amended, is administered by the USFWS, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. FESA is intended to provide for the conservation of endangered and threatened species and the habitats on which they depend. FESA defines an endangered species as “any species that is in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as “any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The presence of any federally threatened or endangered species on a site generally imposes severe constraints on development; particularly if development would result in a take of the species or its habitat. The term “take” is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct.” Harm in this sense can include any disturbance to habitats used by the species during any portion of its life history. FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue incidental take permits for listed species.

State and Federal Take Authorizations for Listed Species

Federal or State authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).

- In 1982, the FESA was amended to give private landowners the ability to develop HCP pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
 - Sections 2090–2097 of the California Endangered Species Act (CESA) require that the State lead agency consult with the CDFW on projects with potential impacts on State-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally-listed as well as State-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under State law.

Federally Designated Special-Status Species

Some years ago, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS. Additionally, the USFWS Birds of Conservation Concern 2008 report was published to identify the migratory and non-migratory bird species (beyond those already federally listed) that represent the highest conservation priorities for USFWS. The following acronyms are used for federal special-status species in this section of the EIR:

- **FE:** Federally listed as Endangered
- **FT:** Federally listed as Threatened
- **FPE:** Federally proposed for listing as Endangered
- **FPT:** Federally proposed for listing as Threatened
- **FC:** Federal Candidate species (Former Category 1 candidates)
- **BCC:** USFWS Birds of Conservation Concern

Sections 404 and 401 of the Clean Water Act of 1972

Section 404 of the Clean Water Act (CWA) (33 United States Code Section 1251 et. seq.) regulates the discharge of dredged or fill material into “waters of the U.S.,” including wetlands. The U.S. Army Corps of Engineers (USACE) is the designated regulatory agency responsible for administering the 404 permit program and for making jurisdictional determinations. This permitting authority applies to all “waters of the U.S.” where the material has the effect of (1) replacing any portion of a “waters of the U.S.” with dry land or (2) changing the bottom elevation of any portion of “waters of the U.S.”. These fill materials would include sand, rock, clay, construction debris, wood chips, and materials used to create any structure or infrastructure in

“waters of the U.S.”. Dredge and fill activities are typically associated with development projects; water-resource related projects; infrastructure development; and wetland conversion to farming, forestry, or urban development.

Under Section 401 of the CWA, an activity requiring a USACE Section 404 permit must obtain a State Water Quality Certification (or waiver thereof) to ensure that the activity will not violate established State water quality standards. The State Water Resources Control Board (SWRCB), in conjunction with the nine California Regional Water Quality Control Boards (RWQCBs), is responsible for administering the Section 401 water quality certification program.

Under Section 401 of the federal CWA, an activity involving discharge into a water body must obtain a federal permit and a State Water Quality Certification to ensure that the activity will not violate established water quality standards. The U.S. Environmental Protection Agency is the federal regulatory agency responsible for implementing the CWA. However, it is the SWRCB, in conjunction with the nine RWQCBs, who essentially has been delegated the responsibility of administering the water quality certification (Section 401) program.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) protects migratory birds and their nests and eggs, both common and special status. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (50 Code of Federal Regulations §10.13, as amended). Since the 1970s, the MBTA has been interpreted to prohibit the accidental or “incidental” take of migratory birds. However, in December 2017, the acting Solicitor of the Department of the Interior issued a new memorandum disclaiming the interpretation of the MBTA as prohibiting incidental take of migratory birds (DOI 2017). In response to the federal changes in interpretation of the MBTA, the CDFW and the California Attorney General have issued an advisory affirming California’s protections for migratory birds (CDFW and Attorney General 2018).

Multiple sections of California Fish and Game Code provide protection for nesting birds and raptors unless the California Fish and Game Code or its implementing regulations provide otherwise. Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically addresses raptors (i.e., birds of prey in the orders Falconiformes and Strigiformes) and makes it unlawful to take, possess, or destroy these birds or their nest or eggs. Section 3513 prohibits the take or possession of migratory non-game birds as designated by the MBTA or any part of such bird.

Migratory birds and raptors (both common and special status) have the potential to nest in the vegetation on the Project site. They could also nest on nearby structures. Take of active bird nests would be a violation of California Fish and Game Code.

State

California Endangered Species Act

CESA (California Fish and Game Code Section 2050 et. seq.) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. 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. For projects that affect both a State-listed and federally listed species, compliance with the federal Endangered Species Act will satisfy CESA if the CDFW determines that the federal incidental take authorization is consistent with CESA under California Fish and Game Code Section 2080.1.

Native Plant Protection Act

California's Native Plant Protection Act (California Fish and Game Code Sections 1900–1913) requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that might otherwise be destroyed.

CEQA Guidelines Section 15380

The CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for State listing. For plants, CDFW assigns California Rare Plant Ranks to species categorized as List 1A, 1B, or 2 of the CNPS Inventory of Rare and Endangered Plants in California may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants, which are regionally important, such as locally rare species, disjunctive populations of more common plants, or plants on the CNPS Lists 3 or 4; however, for the purposes of this report, plant species listed with either 3 or 4 are not evaluated due to their lack of legal protection.

Porter-Cologne Water Quality Control Act

The SWRCB and the RWQCB are the principal State agencies with primary responsibility for the coordination and control of water quality. The Boards regulate activities pursuant to Section 401(a)(1) of the federal CWA as well as the Porter Cologne Water Quality Control Act (Porter-Cologne) (Water Code Section 13260), which is the State's primary water law. Pursuant to the Act, the SWRCB and the nine RWQCBs may require permits (known as "Waste Discharge Requirements" or WDRs) for the fill or alteration of the "waters of the State". The term "waters of the State" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). The State and Regional Boards have interpreted their authority to require WDRs to extend to any proposal to fill or alter "waters of the State", even if those same waters are not under USACE jurisdiction. Pursuant to this authority, the State and Regional Boards may require the submission of a "report of waste discharge" under Section 13260, which is treated as an application for WDRs.

Lakes, Streams, and Associated Habitats

Pursuant to Division 2, Chapter 6, Section 1602 of the Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake which supports fish or wildlife. A notification of a Lake or Streambed Alteration Agreement must be submitted to CDFW for "any activity" that may substantially change the bed,

channel, or bank of any river, stream, or lake." In addition, CDFW has jurisdiction over riparian habitats and wetlands associated with watercourses. As defined by the California Fish and Game Code, "wetlands" means lands, which may be covered periodically or permanently with shallow water and which include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, fens, and vernal pools (FGC Section 2785). Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of a stream or lake, whichever is wider. The CDFW jurisdiction does not include tidal areas or isolated resources. The CDFW reviews proposed actions, and if necessary, submits to the applicant a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alteration Agreement.

Local

County of Orange General Plan

The Natural Resources component of the Resources Element of the County of Orange General Plan identifies and establishes objectives and policies for conserving and protecting natural resources, including vegetation and wildlife. The following are objectives and policies that are relevant to the Project (County of Orange 2021):

- **Objective 1.1:** To prevent the elimination of significant wildlife and vegetation through resource inventory and management strategies; and
- **Policy 1:** To identify and preserve the significant wildlife and vegetation habitats of the County (of Orange).

Orange County Central Subregion NCCP/ HCP/ Habitat Conservation Plan (HCP)

The Orange County Central Subregion NCCP/HCP was developed in cooperation with the USFWS and the California Department of Fish and Game. The plan is one of eleven NCCP sub-regional planning efforts within the five county southern California area. The plan is a habitat-based multiple-species conservation strategy envisioned by the state's NCCP program. It differs fundamentally from previous individual species protection strategies followed under CESA and FESA. It is designed to conserve and protect federally listed and unlisted species while allowing for changes or alterations to wildlife habitats. 39 species are protected under the NCCP, including nine plant and 30 animal species. The Central and Coastal Subregion of this plan is a 208,000-acre area that includes the central portion of Orange County, incorporating the area from the coastline inland to Riverside County. The inland boundaries of the subregion follow State Route 91 along the west and El Toro Road and Interstate 5 to San Juan Creek to the east. The Project site is located within the boundaries of the County of Orange NCCP/HCP area. Reserved land categorized within the Central Subregion NCCP/HCP is located 0.03 miles north of the Project site.

4.3.5 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to biological resources if it would:

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

4.3.6 IMPACT ANALYSIS

The following analysis addresses “direct” and “indirect” impacts. Direct impacts are those that involve the initial loss of habitat or individuals due to vegetation clearing and construction-related activities. Indirect impacts would be those related to impacts on the adjacent habitat due to construction activities (e.g., fugitive dust, noise) or operation of a project (e.g., human activity).

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

Less Than Significant Impact with Mitigation. Limited vegetation is present on the Project site and no native vegetation types would be impacted by the Project. No suitable habitat for any special status plant or wildlife species occurs on the Project site except for marginally suitable habitat for western yellow bat, a California Species of Special Concern. Development of the Project has the potential to impact the western yellow bat through removal and/or modification of habitat, thus resulting in a potentially significant impact. **MM BIO-1** requires avoidance of tree removal during the bat maternity season as well as monitoring by a bat biologist during removal of palm trees. With implementation of **MM BIO-1**, impacts to western yellow bat would be reduced to less than significant. With implementation of **MM BIO-1**, the Project would have less than significant impacts related to threshold.

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

No Impact. The Project site has been previously disturbed and developed with recreational facilities. The Project site does not support any natural open space or native vegetation; however, there is mature ornamental landscaping onsite, which includes, but is not limited to, palm trees, pepper trees, pine trees, hedges, and turf. According to a review of the National Wetland Inventory maintained by the USFWS, there are no wetlands or riparian areas mapped within the Project site (USFWS 2021). Furthermore, during the survey conducted by Psomas in 2021, there were no potential jurisdictional features, riparian habitat, or other sensitive vegetation communities identified within the Project site. Therefore, no impacts are anticipated, and no mitigation measures are either required or recommended.

- c) Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

No Impact. The Project site has been previously disturbed and developed with recreational facilities and is devoid of natural drainages features. No potential jurisdictional features were identified within the Project site during the survey conducted by Psomas in 2021. Additionally, as discussed in response to threshold b), above, no wetlands on the National Wetlands Inventory are located within the Project site. Therefore, no impacts are anticipated, and no mitigation measures are either required or recommended.

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

Less Than Significant Impact with Mitigation. Developed areas do not generally facilitate regional wildlife movement, and the Project site and surrounding area is developed with urban uses. No regional wildlife movement is expected to occur on site because the site is developed and does not provide a linkage to other undeveloped areas. Only urban-tolerant wildlife (e.g., opossum and coyote) and urban-adapted bird species would be expected to use the site for wildlife movement. The proposed Project would not interfere substantially with the movement of native resident or migratory fish or other wildlife species or established wildlife corridor because none of them are present on site.

The vegetation on the Project site provides suitable nesting habitat for bird species protected under California Fish and Game Code Section 3503. It is possible to avoid impacts by scheduling tree and vegetation removal outside of the breeding season. This requires that all tree removal during the non-nesting bird season (i.e., September 2 to February 14). If vegetation removal activities need to occur during the nesting season, impacts to actively nesting bird species protected under the California Fish and Game Code could occur, which would result in a significant impact. Implementation of **MM BIO-2**, which requires preconstruction nesting bird surveys and avoidance of active nests, would reduce potential impacts to nesting birds to less than significant levels.

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

No Impact. The County of Orange does not have any specific policies or ordinances protecting biological resources, such as a tree preservation ordinance, for this portion of the County of Orange. Therefore, no impacts are anticipated and no mitigation is required.

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

No Impact. Although the Project site is located in the limits of the Orange County Central Subregion NCCP/HCP, it is not located within or immediately adjacent to a Reserve area, special linkage area, or non-reserve open space area. The Project site is fully developed and does not support native habitats, sensitive plant or wildlife species, or sensitive plant communities subject to the provisions of the Orange County Central Subregion NCCP/HCP. Therefore, the Project would not conflict with the provisions of the Orange County Central Subregion NCCP/HCP and the Project would not conflict with local plans or policies protecting biological resources and provisions of the Orange County Central Subregion NCCP/HCP. No impacts are anticipated, and no mitigation measures are either required or recommended.

4.3.7 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.1, Cumulative Impacts.

As described above, vegetation clearing associated with the Project would result in potentially significant impacts to western yellow bat and to nesting birds. **MM BIO-1** has been incorporated as part of the Project to avoid impacts to western yellow bat. **MM BIO-1** requires avoidance of tree removal during the bat maternity season, to the extent feasible, and monitoring by a bat biologist during removal of palm trees. **MM BIO-2** has been incorporated as part of the project to avoid impacts to nesting birds. **MM BIO-2** requires avoidance of tree and vegetation removal during the nesting bird season. If avoidance is not possible, **MM BIO-2** contains preconstruction nesting bird survey protocols.

It is likely that most of the cumulative projects would require a certain degree of vegetation removal as part of their site development that could also impact the western yellow bat and nesting birds. However, cumulative biological resource impacts are not anticipated when considering the Project with these cumulative projects because they would all be required to adhere to the MBTA, which is a federal law.

4.3.8 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

- **MM BIO-1:** To avoid impacts to roosting bats, vegetation removal shall be scheduled outside of the maternity season (i.e., April 1 through August 31). If tree clearing during the maternity season is not feasible, then pre-construction roost emergence survey will be conducted by a qualified biologist prior to Project vegetation clearing. Trees that are being used by roosting bats and those within 100 feet of an active roost will not be removed during the maternity season (i.e., April 1 through August 31) to avoid impacts on an active maternity roost, which may include juvenile bats that cannot fly.

Also, a qualified bat Biologist should be present during removal of palm trees at any time of year. During removal of palm trees, dead palm fronds should be removed prior to felling the tree. To the greatest extent possible, the drop distance of palm fronds should be minimized to minimize the potential for injury of bats that may be roosting in the fronds. The Biologist will examine the palm fronds immediately following their removal for torpid (dormant) bats.

- **MM BIO-2:** To avoid impacts on nesting birds and raptors, vegetation removal should be scheduled between September 2 and February 14, which is outside the peak nesting season. If vegetation removal must occur during the peak nesting season (i.e., February 15 to September 1), a pre-construction nesting bird survey should be conducted by a qualified Biologist within 7 days prior to vegetation removal activities. This requirement shall be included as notes on the contractor specifications and shall be reviewed by the Manager of Building & Safety, or designee, for compliance with this requirement prior to issuance of a grading permit.

If the Biologist finds an active nest within or adjacent to the construction area, the Biologist will identify an appropriate protective buffer zone around the nest depending on the sensitivity of the species, the nature of the construction activity, and the amount of existing disturbance in the vicinity. In general, the Biologist should designate a buffer between 10 to 200 feet for common nesting birds and 200 to 500 feet for nesting raptors. No construction activities will be allowed within the buffer until nesting activity has ended to ensure compliance with California Fish and Game Code.

4.3.9 SIGNIFICANCE AFTER MITIGATION

With implementation of mitigation measures **MM BIO-1** and **MM BIO-2**, potentially significant impacts related to biological resources would be reduced to less than significant.

4.3.10 REFERENCES

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4.4 CULTURAL RESOURCES

4.4.1 EXISTING CONDITIONS

South Central Coastal Information Center Record Search

An archaeological records search was conducted by Psomas Archaeologist Charles Cisneros on November 21, 2017¹, at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The SCCIC is the designated branch of the California Historical Resources Information System, one of ten Statewide repositories, which houses records of archaeological and historic resources in Orange, Los Angeles, San Bernardino, and Ventura Counties. The review consisted of an examination of the U.S. Geological Survey's Orange 7.5-minute quadrangle to evaluate the Project area for any sites recorded or cultural resources studies conducted on the Project site and within a ½-mile radius. Data sources consulted at the SCCIC include the Historic Property Data File (HPDF) maintained by the California Office of Historic Preservation, archaeological records, Archaeological Determinations of Eligibility, and historic maps. The HPDF contains listings for the California Register of Historic Resources (CRHR), Nation Register of Historic Places (NRHP), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI).

Previous Cultural Resources Studies Within One-Half Mile of the Project Site

The SCCIC records search identified 22 prior cultural resources technical studies within ½-mile of the Project site (SCCIC 2017). The technical studies consist of block and linear surveys, archaeological data recovery (excavations and testing), regional overviews, and construction compliance monitoring projects dating to as early as 1976 and as recently as 2011. The studies were all located within a half-mile of the Project site. The regional overview studies are a testament to the archaeological sensitivity of the region surrounding the project area. The prior studies are listed in Table 4.4-1, Previous Cultural Resources Studies Within One-Half Mile of the Project Site. Of the 22 studies identified within the search radius, none are located within the Project site.

¹ Since the SCCIC records search was obtained, limited development has occurred in the Project vicinity. Therefore, an updated records search was determined to not be warranted

**TABLE 4.4-1
PREVIOUS CULTURAL RESOURCES STUDIES
WITHIN ONE-HALF MILE OF THE PROJECT SITE**

Report Number	Author/Year	Title	Type of Study
OR-00062	Desautels 1976	Archaeological Survey Report on Lot 13 – Irvine Tract 694 – Assessor’s Parcel #103-052-13 Located in the Lemon Heights Area of Orange County	Archaeological Survey
OR-00077	Unknown 1976	Archaeological Survey Report on Lot No. 318, Block 13 – Irvine’s Subdivision Per Map Recorded in Book 1, Page 88 of Msc. Record Maps, County of Orange	Archaeological Survey
OR-00130	Desautels 1976	Archaeological Survey Report on 3 Parcels of Land Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00133	Desautels 1977	Archaeological Survey Report on 1.5 Acres of Land Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00151	Desautels 1977	Archaeological Survey Report on Tt 9688 Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00172	Desautels 1977	Archaeological Survey Report on Two Aces of Land Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00200	Perry 1977	Archaeological Survey Report on Four Parcels of Land Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00274	Anonymous 1978	Report of Archaeological Resources Survey Conducted for Laguna and Peter’s Canyons	Archaeological Survey
OR-00305	Schroth 1979	The History of Archaeological Research on Irvine Ranch Property: The Evolution of a Company Tradition	Archaeological Research Special Report
OR-00494	Singer 1976	Preliminary Assessment of Cultural Resources within the Proposed Peters Canyon Regional Park, Orange County	Archaeological Resources Assessment
OR-00500	Desautels 1980	Archaeological Survey Report on Lot 38 Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00616	Van Horn 1981	Archaeological Survey Report: Tentative Parcel Map No. 465 Located in Lemon Heights, County of Orange, California	Archaeological Survey
OR-00752	Mason 1984	Eastern Corridor Alignment Study, Orange County, California, Volume II: Prehistory and History	Archaeological Overview

**TABLE 4.4-1
PREVIOUS CULTURAL RESOURCES STUDIES
WITHIN ONE-HALF MILE OF THE PROJECT SITE**

Report Number	Author/Year	Title	Type of Study
OR-00936	Breece, Rosenthal, and Padon 1988	Test Level Investigations at CA-ORA-184 and CA-ORA-548 Peters Canyon, Tustin, California	Archaeological Testing
OR-01040	Jertberg 1990	Archaeological and Paleontological Monitoring Report for Tract 13627	Archaeological and Paleontological Monitoring
OR-01078	Rosenthal, Padon, and Crownover	Archaeological Investigations at CA-ORA-184 Locus B, CA-ORA-547 Locus B, CA-ORA-548 Extension, CA-ORA-771 and CA-ORA-771 Extension, Peters Canyon, Tustin, California	Archaeological Testing
OR-01132	Jertberg 1990	Monitoring and Supplemental Data Recovery at CA-ORA-184a/548 Peters Canyon, Tustin, California	Archaeological Monitoring and Testing
OR-02225	Strozier 1978	The Irvine Company Planning Process and California Archaeology – A Review and Critique	Archaeological Review
OR-02534	Anonymous 1976	Annual Report to The Irvine Company from Archaeological Research, Inc.	Archaeological Report
OR-03808	Bonner 2009	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate LA338429 (Cedar Grove Park), 11385 Pioneer Road, Tustin, Orange County, California	Archaeological Survey
OR-04155	Bonner 2011	Cedar Grove LA33842-E, 11385 Pioneer Road, Tustin, California 92782	Cultural Resources Study
OR-04360	Stevens and Maxon 1998	Final Paleontological and Archaeological Monitoring Report for Tustin Ranch Project, Tract 15601, City of Tustin, California	Archaeological and Paleontological Monitoring
Source: SCCIC 2017.			

Previously Recorded Archaeological Sites

The SCCIC records search also identified four archaeological sites within a half-mile radius of the Project site. The presence of several archaeological sites in the immediate vicinity of the Project site is an indicator that the region has the potential to provide a wealth of information on past human activities within this area. Of the four sites, three are solely prehistoric, comprising habitation debris (fire affected rocks) and lithic (stone) scatters. The lithic scatters consisted mostly of debitage (lithic waste flakes) and stone tools, including ground stone fragments, blades, and choppers/hammerstones. One obsidian (volcanic glass) retouched lithic stone tool was also identified at one of the sites suggesting imported material was brought to the region from other parts of California. The remaining archaeological site is described as a multicomponent rock art site dating to both the prehistoric and historic eras. None of the

archaeological sites are located on the Project site and would not be impacted from Project related activities.

Descriptions of the sites and the dates of recordation are provided in Table 4.4-2, Previously Recorded Archaeological Sites Within One-Half Mile of the Project Site.

**TABLE 4.4-2
PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES
WITHIN ONE-HALF MILE OF THE PROJECT SITE**

Primary Number	Site Number	Recorder/Year	Description	Relative Location to the Project Area
P-30-000548	CA-ORA-548	Cody 1984	Prehistoric: lithic scatter, habitation debris	Outside
P-30-000711	CA-ORA-711	Bissell 1995	Prehistoric: lithic scatter, habitation debris	Outside
P-30-000772	CA-ORA-772	Cody 1984	Prehistoric: lithic scatter, habitation debris	Outside
P-30-001195	CA-ORA-1195/H	Banks 1984	Multicomponent: rock art	Outside

Source: SCCIC 2017.

Native American Consultation

Significant impacts to tribal cultural resources are considered significant impacts to the environment. Pursuant to Assembly Bill (AB) 52 requires lead agencies to consult with California Native American tribes that request such consultation. As discussed in Section 4.16, Tribal Cultural Resources, the County has conducted the necessary consultation process.

Native American Heritage Commission

Psomias submitted a request to the Native American Heritage Council (NAHC) for a Sacred Lands File search and a list of tribal representatives for AB 52 consultation on November 1, 2018. The NAHC conducted a Sacred Lands File search for the Project site. Results were received on November 15, 2018. The search failed to identify any sacred places or objects with cultural value to a California Native American tribe on the Project site.

4.4.2 REGULATORY SETTING

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended, promotes the preservation, enhancement, and productive use of historic resources. The NHPA established the Advisory Council on Historic Preservation (ACHP) and provided procedures for the ACHP and federal agencies in promoting historic preservation.

Section 106 of the NHPA requires that federal actions and the use of federal funds take into account their potential effects on historic properties or those listed in or eligible for listing in the NRHP.

National Register of Historic Places

Authorized by the NHPA, the U.S. Department of the Interior National Park Service's NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources. The NRHP is the official list of the nation's historic places worthy of preservation. Listing on the National Register places no obligations on private property owners. It places no restrictions on the use, treatment, transfer, or disposition of private property. Listing on the NRHP does, however, incentivize preservation. Property owners can become eligible to receive federal preservation grants and federal tax credits; they may utilize alternative methods of preservation in compliance with building code provisions. In order for a resource to qualify for listing on the NRHP, the quality of significance in American history, architecture, archaeology, engineering, and culture must be present in districts, sites, buildings, structures, and objects that possess integrity and:

- A. are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. are associated with the lives of persons significant in our past; or
- C. embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. have yielded or may be likely to yield information important in prehistory or history.

Integrity

In order to be eligible for listing in the NRHP and CRHR, a property must retain sufficient integrity to convey its significance. The NRHP publication *How to Apply the National Register Criteria for Evaluation* (National Register Bulletin 15) establishes how to evaluate the integrity of a property: "Integrity is the ability of a property to convey its significance". The evaluation of integrity must be grounded in an understanding of a property's physical features and how they relate to the concept of integrity. Determining which of these aspects are most important to a property requires knowing why, where, and when a property is significant. To retain historic integrity, a property must possess several, and usually most, aspects of integrity:

1. **Location** is the place where the historic property was constructed or the place where the historic event occurred.
2. **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
3. **Setting** is the physical environment of a historic property and refers to the character of the site and the relationship to surrounding features and open space. Setting often refers to the basic physical conditions under which a property was built and the functions it was intended to serve. These features

can be either natural or man-made, including vegetation, paths, fences, and relationships between other features or open space.

4. **Materials** are the physical elements that were combined or deposited during a particular period or time and in a particular pattern or configuration to form a historic property.
5. **Workmanship** is the physical evidence of crafts of a particular culture or people during any given period of history or prehistory and can be applied to the property as a whole or to individual components.
6. **Feeling** is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, when taken together, convey the property's historic character.
7. **Association** is the direct link between the important historic event or person and a historic property.

Secretary of Interior's Standards

The Secretary of the Interior's (SOI's) Standards were codified in 1995 (36 Code of Federal Regulations Part 68) to establish professional standards that apply to all proposed development grant-in-aid projects assisted through the National Historic Preservation Fund and to serve as general guidance for work on any other historic building. The SOI Standards apply to historic properties of all periods, styles, types, materials, and sizes. The ten Standards for Rehabilitation are the following:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

State

California Register of Historical Resources

The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for State and local planning purposes; determines eligibility for State historic preservation grant funding; and affords certain protections under the California Environmental Quality Act (CEQA). The criteria established for eligibility for the CRHR are directly comparable to the national criteria established for the NRHP. In order to be eligible for listing in the CRHR, a building, object, or structure must satisfy at least one of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. It is associated with the lives of persons important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Archaeologists assess sites based on all four of the above criteria but usually focus on the fourth criterion provided above. Historical resources eligible for listing in the CRHR must also retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. For the purposes of eligibility for the CRHR, integrity is defined as “the authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance”. This general definition is generally strengthened by the more specific definition offered by the NRHP—the criteria and guidelines on which the CRHR criteria and guidelines are based upon.

California Environmental Quality Act

Archaeological and Historical Resources

CEQA requires a lead agency to determine whether a project would have a significant effect on the environment, including historical resources. CEQA Guidelines Section 15064.5, Determining the Significance of Impacts to Archeological and Historical Resources, requires that all private and public activities not specifically exempted should be evaluated against the potential for environmental damage, including effects to historical resources. Historical resources are recognized as part of the environment under CEQA. It defines historical resources as “any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California”.

Lead agencies have a responsibility to evaluate historical resources against the CRHR criteria prior to making a finding as to a project’s impacts to historical resources. Mitigation of adverse impacts is required if the project will cause substantial adverse change to a historical resource. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired. While demolition and destruction are likely significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of a historical resource that convey its historical significance (i.e., its character-defining features) can be considered to materially impair the resource’s significance. The CRHR is used in the consideration of historical resources relative to significance for purposes of CEQA. The CRHR includes resources listed in, or formally determined eligible for listing in, the NRHP, as well as some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be a “historical resource” if it:

1. Is listed in or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (California Public Resources Code [PRC] Section 5024.1, Title 14 California Code of Regulations, Section 4850 et. seq.).
2. Is included in a local register of historical resources or is identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC.
3. Is a building or structure determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

Assembly Bill 52

In September 2014, Governor Brown signed AB 52 (Chapter 532, Statutes of 2014), which creates a new category of environmental resources that must be considered under CEQA: “tribal cultural resources.” The legislation imposes new requirements for offering to consult with

California Native American tribes regarding projects that may affect a tribal cultural resource, emphasizes a broad definition of what may be considered to be a tribal cultural resource, and includes a list of recommended mitigation measures (MMs).

Recognizing that tribes may have expertise regarding their tribal history and practices, AB 52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. MMs agreed upon during consultation must be recommended for inclusion in the environmental document.

AB 52 became effective on July 1, 2015, and requires that the lead agency provide project notifications to California Native American tribes on the NAHC Tribal Consultation list that request notification in writing prior to a lead agency's release of a Notice of Preparation for an Environmental Impact Report (EIR), a Mitigated Negative Declaration, or Negative Declaration. Once Native American tribes receive a project notification, they have 30 days to respond as to whether they wish to initiate consultation regarding the project and specifically consultation regarding mitigation for any potential project impacts. More information related to the Project's AB 52 tribal consultation is provided in Section 4.16 of this EIR.

California Health and Safety Code (Sections 7050.5, 7051, and 7054)

These sections of the California Health and Safety Code collectively address the illegality of interference with human burial remains (except as allowed under applicable sections of the PRC). These sections also address the disposition of Native American burials in archaeological sites and protect such remains from disturbance, vandalism, or inadvertent destruction. Procedures to be implemented are established for (1) the discovery of Native American skeletal remains during construction of a project; (2) the treatment of the remains prior to, during, and after evaluation; and (3) reburial.

Section 7050.5 of the California Health and Safety Code specifically provides for the disposition of accidentally discovered human remains. Section 7050.5 states that if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the Orange County Coroner has determined the appropriate treatment and disposition of the human remains.

California Public Resources Code (Section 5097.98)

These sections of the California Health and Safety Code collectively address the illegality of interference with human burial remains (except as allowed under applicable sections of the PRC). These sections also address the disposition of Native American burials in archaeological sites and protect such remains from disturbance, vandalism, or inadvertent destruction. Procedures to be implemented are established for (1) the discovery of Native American skeletal remains during construction of a project; (2) the treatment of the remains prior to, during, and after evaluation; and (3) reburial.

Section 7050.5 of the California Health and Safety Code specifically provides for the disposition of accidentally discovered human remains. Section 7050.5 states that if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected

to overlie adjacent remains shall occur until the Orange County Coroner has determined the appropriate treatment and disposition of the human remains.

4.4.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or
- c) Disturb any human remains, including those interred outside formal cemeteries.

4.4.4 IMPACT ANALYSIS

- a) *Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?*

No Impact. The Project site is previously developed and adjacent to developed residential property in the City of Tustin. Based on the literature review, structures within the existing Tustin Hills Racquet and Pickleball Club and adjacent structures are not listed in the CRHR, the NRHP, CHL, or CPHI. A designated California Historic Landmark CHL No. 203, Red Hill Orange, also known as Cerrito De Las Ranas (Hill of the Frogs) is located 0.75 mile from the Project site. Due to the distance from the Project site, the landmark would not be impacted by the Project.

A Historical Resources Assessment, provided in Appendix D, was prepared to conduct a historical resource investigation of the Tustin Hills Racquet and Pickleball Club (PaleoWest 2019). A pedestrian survey and historical research were conducted as part of the evaluation. Criteria of the CRHR was applied to evaluate the eligibility of the Racquet Club for listing on the CRHR. Based on this evaluation, it was determined that the Racquet Club does not meet any of the four criteria used for eligibility of listing on the CRHR. Therefore, the Tustin Hills Racquet and Pickleball Club is not considered a historical resource.

Furthermore, the Cultural-Historical Component of the Resources Element of the County of Orange General Plan does not include the Project site or the existing Tustin Hills Racquet and Pickleball Club in the Local Register of Historical Resources (County of Orange 2021). In addition, there are no historical resources or districts near the Project site. Most of the residential buildings surrounding the Project site to the north and west, were built between 1966 and 1970. The Tustin Hills Racquet and Pickleball Club was established in 1958. Homes southwest of the Project site within the City of Tustin were built prior to 2002 (GEOCON 2017).

There are no historic resources, including significant historic structures, on the Project site. Thus, the demolition of the racquet club and associated facilities and redevelopment of the Project site with residential uses would not cause any direct or indirect impact to historic resources, nor would it adversely affect the historic significance of historical resources in the County of Orange. No off-site historical resources were identified in the records search. The Project would not cause a substantial adverse change in the significance of a historical resource as defined in

§15064.5. No impact would occur related to historical resources, and no mitigation measures are either required or recommended.

b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant Impact. The Project site consists of 5.88 acres located in a region of Orange County that has a long and diverse history of human occupation and interaction as evidenced from the SCCIC records search and literature review. The results of the SCCIC records search indicate that three previously recorded prehistoric habitation sites (CA-ORA-548, CA-ORA-711, and CA-ORA-772) and one multicomponent rock art site (CA-ORA-1195/H) have been identified within a half mile of the Project site; however, the archaeological sites are not within the Project site and will not be affected by Project related activities. Moreover, the Project site has been previously graded and disturbed and artificial fill extends between 2.5 and 8 feet below ground surface. Artificial fill (found in the upper 2.5 to 8 feet of soils) and previous intact native sediments would have been disturbed from past grading activities. Therefore, these depths are unlikely to contain significant intact archaeological resources. Furthermore, as required by **SC CUL-1** and **SC TCR-1**, the Applicant would be required to retain a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary if they are encountered. Impacts would be less than significant, and no mitigation measures are either required or recommended.

c) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. The Project site has been previously graded for the existing Tustin Hills Racquet and Pickleball Club, and no human remains were identified by either the SCCIC or from the NAHC Sacred Lands File record searches conducted in 2017. Therefore, the Project is not expected to be developed in any areas containing known human remains, including those interred outside formal cemeteries. In the unlikely event that suspected human remains are uncovered during construction, the Applicant would comply with **RR CUL-1**, which requires all activities near the remains to be ceased and for the Applicant to notify the Orange County Coroner immediately pursuant to Section 7050.5 of the California Health and Safety Code. Impacts would be less than significant, and no mitigation measures are either required or recommended.

4.4.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As described above, there is a remote possibility that undiscovered intact archaeological deposits may be present below the 8-foot depth in undisturbed Quaternary Alluvium, and these intact deposits (if present) may be subject to direct impact. As such, **SC CUL-1** is included as part of the Project, which requires a County-certified archaeologist to observe grading activities within native sediments and salvage and catalogue archaeological resources that may be uncovered during excavation activities. Also, although no known cemeteries exist within or near the Project

site, there is a remote possibility that human remains could be uncovered during construction. **RR CUL-1** would be implemented as part of the Project, which requires that if suspected human remains are uncovered, that all activities near the remains be ceased and that the Orange County Coroner be notified until the remains can be assessed and recovered.

It is likely that most, if not all, of the cumulative projects would result in native ground disturbance that could encounter and affect archaeological resources and/or human remains. During each projects' entitlement process, it is the responsibility of the CEQA Lead Agency reviewing each project to identify potentially significant impacts, including potential archaeological resource impacts related to archaeological sensitivity, and to require mitigation measures if needed. Furthermore, all projects are required to comply with the requirements of **RR CUL-1** to stop work and call the Orange County Coroner if human remains are encountered. Therefore, given that cumulative projects would be required to implement similar measures, if applicable, as the proposed Project, there would be no cumulatively considerable impacts related to cultural resource thresholds.

4.4.6 MITIGATION PROGRAM

Regulatory Requirements

RR CUL-1 If human remains are encountered during excavation activities, all work shall halt in the vicinity of the remains and the Orange County Coroner shall be notified (California Public Resources Code, Section 5097.98). The Coroner will determine whether the remains are of forensic interest. If the Coroner, with the aid of a County-certified archaeologist, determines that the remains are prehistoric, she/he will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD shall make his/her recommendation within 48 hours of being granted access to the site. If feasible, the MLD's recommendation should be followed and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (California Health and Safety Code, Section 7050.5). If the Applicant rejects the MLD's recommendations, the Applicant shall rebury the remains with appropriate dignity on the Project site in a location that will not be subject to further subsurface disturbance (California Public Resources Code, Section 5097.98).

County Standard Conditions of Approval

SC CUL-1 County Standard Condition of Approval A04:

Prior to the issuance of any grading permit, the Applicant shall provide written evidence to the Manager, Subdivision and Grading, that the Applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the Applicant,

procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeologist shall determine appropriate actions, in cooperation with the Applicant and County, for exploration and/or salvage.

Prior to the release of the grading bond the Applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Applicant shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, HBP/Coastal and Historical Facilities. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

Mitigation Measures

Project-related impacts to cultural resources would be less than significant, and no mitigation measures are required or recommended.

4.4.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to cultural resources would be less than significant, and no mitigation measures are required or recommended.

4.4.8 REFERENCES

GEOCON West. 2017. "Phase I Environmental Site Assessment Report, Tustin Hills Racquet Club, 11782 Simon Ranch Road, Santa Ana, California". PaleoWest Archaeology. 2019 (October 30). Historical Resource Assessment of Tustin Hills Racquet Club, Orange County, California. San Diego, CA: PaleoWest

Orange, County of. 2021. (August 2, last accessed). County of Orange General Plan. Santa Ana, CA: County of Orange, Development Services.

South Central Coastal Information Center. 2017 (November 21). Archaeological Records Search Fullerton, CA: SCCIC.

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4.5 ENERGY

4.5.1 EXISTING CONDITIONS

The Project site is currently developed as the Tustin Hills Racquet and Pickleball Club, which includes eight full sized tennis courts, 12 pickleball courts, a swimming pool with two spas, a lawn/outdoor event area, and two single-story buildings with banquet spaces, meeting rooms, and administrative offices for a total of approximately 10,000 square feet, as well as a paved parking area that can accommodate approximately 127 cars. Energy consumption with the existing facilities includes electricity and natural gas consumption used primarily for heating, lighting, and electronic devices.

Southern California Edison and the Southern California Gas Company are the utility companies that currently provide and would continue to provide electrical and natural gas services to the Project site. The State of California and County of Orange have developed energy efficiency requirements and energy conservation goals. Compliance with energy efficiency and conservation policies and regulations is discussed in this section.

4.5.2 REGULATORY SETTING

Federal

The Office of Energy Efficiency and Renewable Energy's (EERE) mission is to accelerate the research, development, demonstration, and deployment of technologies and solutions to equitably transition America to net-zero greenhouse gas emissions economy-wide by no later than 2050, and ensure the clean energy economy benefits all Americans, creating good paying jobs for the American people—especially workers and communities impacted by the energy transition and those historically underserved by the energy system and overburdened by pollution. (EERE 2021)

EERE's work will involves the four principles:

- Building the clean energy economy in a way that benefits all Americans. We must address environmental injustices that disproportionately affect communities of color, low-income communities, and indigenous communities.
- Fostering a diverse Science Technology Engineering and Math (STEM) workforce. We need to increase awareness of clean energy job opportunities at minority-serving institutions and ensure that organizations receiving EERE funding are thinking through diversity and equity in their own work.
- Developing more robust workforce training opportunities to build a pipeline for permanent, good-paying jobs for the clean energy workforce.
- Working closely and learning from state and local governments.

State

The State of California has also adopted efficiency design standards within the Title 24 Building Standards and CALGreen requirements (CBSC 2018). Title 24 of the California Code of Regulations (CCR, specifically, Part 6) is California's Energy Efficiency Standards for Residential and Non-residential Buildings. Title 24 was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and to provide energy efficiency standards for residential and non-residential buildings. The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen Code, contains mandatory requirements for new residential and nonresidential buildings throughout California. The development of the CALGreen Code is intended to (1) cause a reduction in greenhouse gas emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the Code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction. The regulation of energy efficiency for residential and non-residential structures is established by the California Energy Commission (CEC 2018) and its California Energy Code. Starting on January 1, 2020, all new single-family residential uses will be required to offset their annual electrical demand through the use of energy efficiency and solar photovoltaic panels.

Also, Section 21100(b)(3) of the California Public Resources Code and Appendix G to the State California Environmental Quality Act (CEQA) Guidelines require a discussion of potential energy impacts of proposed projects. Appendix G states:

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include the following:

- (1) Decreasing overall per capita energy consumption,
- (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
- (3) Increasing reliance on renewable energy sources.

Local

County of Orange General Plan

The General Plan provides for the following policies relative to energy use in the County of Orange:

Land Use – To plan urban land uses with a balance of residential, industrial, commercial, and public land uses as set forth in the Land Use Element.

Energy Resources – To encourage and actively support the efficient use and optimum development of energy resources in the County consistent with sound resource management practices.

Energy Conservation – To encourage and actively support the utilization of energy conservation measures in all new and existing structures in the County.

Transportation – To provide incentives for transportation system management programs and support regional public transportation programs that reduce energy consumption.

Energy Financing – To examine the benefits of local government financing programs that promote energy conservation and development through cooperative public/private efforts.

Alternative Energy Systems – To encourage the use of alternative energy systems and, to the extent feasible, remove the regulatory barriers to their implementation.

Solar Access – To support and encourage voluntary efforts to provide solar access opportunities in new developments.

In addition, the Resources Element of the General Plan provides for the following goals and objectives relative to energy use in the County of Orange.

Goal 1: Maximize the conservation and wise use of energy resources in all residences, businesses, public institutions, and industries in Orange County.

- **Objective:**

- 1.1 Achieve a reduction in projected per capita energy demand and consumption by the year 2005.

Goal 2: Encourage the utilization of existing energy resources to their highest potential and the development of alternative energy sources consistent with sound energy conservation practices and techniques to meet the County's future energy demand.

- **Objective:**

- 2.1 Encourage the efficient development of local energy resources to supply a portion of the County's energy demand through the year 2005 in a manner which protects the environment.

Goal 3: Maximize the conservation of energy resources in all future land use and transportation planning decisions.

- **Objectives**

- 3.1 To achieve target residential densities along transportation corridors and in urban activity centers as set forth in the Air Quality Management Plan.

- 3.2 To reduce transportation demand by establishing balanced communities that provide housing, employment, recreational, and cultural opportunities for all segments of the population.

- 3.3 To maintain a community leadership role with respect to conservation of nonrenewable resources and assist existing utility conservation programs.

4.5.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to energy if it would:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.5.4 IMPACT ANALYSIS

- a) *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less Than Significant Impact. Energy consumption would occur during construction and operation of the Project. The following provides estimates of the anticipated energy consumption associated with the Project.

Construction

Project construction would require the use of construction equipment for grading and building activities; all off-road construction equipment is assumed to use diesel fuel. Construction also includes the vehicles of construction workers and vendors traveling to and from the Project site.

Off-road construction equipment use was calculated from the equipment data (i.e., mix, hours per day, horsepower, load factor, and days per phase) provided in the CalEEMod construction output files included in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations. The total horsepower hours for the Project was then multiplied by fuel usage estimates per hours of construction activities included in the OFFROAD Model.

Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total vehicle miles traveled (VMT) was then calculated for each type of construction-related trip and divided by the corresponding miles per gallon factor using California Air Resources Board's EMFAC 2017 model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks.

As shown in Table 4.5-1, Energy Use During Construction, a total 39,200 gallons of gasoline fuel and 21,689 gallons of diesel is estimated to be used during Project construction.

**TABLE 4.5-1
ENERGY USE DURING CONSTRUCTION**

Source	Gasoline – gallons	Diesel Fuel – gallons
Off-road Construction Equipment	19,404	20,703
Worker commute	17,258	88
Vendors	2,538	45
On-road haul	1	853
Totals	39,200	21,689
Note: Totals may not add due to rounding. Sources: Data from CalEEMod, OFFROAD and EMFAC2017 provided in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations.		

Fuel energy consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. Furthermore, there are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Energy used in construction of the Project would enable the development of buildings that meet the latest energy efficiency standards as detailed in California's Title 24 building standards. Therefore, proposed construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption. Impacts would be less than significant, and no mitigation measures are either required or recommended.

Operations

The Project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 and CALGreen). The Project site is currently occupied by recreational facilities. The energy usage associated with the existing facility operations would be replaced by those associated with the Project. The Project's energy consumption is shown in Table 4.5-2, Energy Use During Operations, below. Energy use associated with vehicular trips would be less than the existing condition because the Project would result in fewer daily vehicle trips compared to existing conditions (Psomas 2021).

**TABLE 4.5-2
ENERGY USE DURING OPERATIONS**

Land Use	Natural Gas (kBtu/yr)	Electricity (kWh/yr)
Project Land Uses	632,878	187,753
Notes: kBtu/yr stands for thousands of British thermal units per year; kWh/yr stands for Kilowatt-hours per year. Sources: Data from CalEEMod, OFFROAD and EMFAC2017, is provided in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations, and Energy Calculations are provided in Appendix E, Energy Calculations.		

The CEC anticipates the new 2019 Building Energy Efficiency Standards would result in a reduction of energy use by more than 50 percent as compared to previous energy standards (CEC 2018). Therefore, the new buildings would be more energy efficient than the existing buildings to be removed. With respect to energy use associated with transportation, the Project uses would result in a net reduction of trips (Psomas 2021).

Finally, in terms of whether the operations phase would result in a wasteful, inefficient, or unnecessary consumption of energy resources, the Project would add new units to the housing inventory within the County of Orange, which is currently experiencing a substantial housing shortage (County of Orange 2018). Because the Project would help to address the deficiency in housing stock within the County of Orange, the Project would not be considered wasteful or unnecessary. Therefore, the Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and no mitigation measures are either required or recommended.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The Project would be required to comply with the State of California's Title 24 Building Standards. As discussed previously, the latest building standards incorporate the CEC's building energy efficiency standards which will reduce energy consumption compared to buildings constructed under older building standards. Because the Project complies with the latest energy efficiency standards, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation measures are either required or recommended.

4.5.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

The Project and all new land use developments are required to comply with the latest energy efficiency standards set forth in the State of California's Title 24 Energy Efficiency Standards. These standards have become increasingly more stringent over the decades and are developed to conserve energy and water resources. As such, the Project and related projects would not result in cumulative impacts.

4.5.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to energy were identified; therefore, no mitigation measures are required.

4.5.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to energy would be less than significant, and no mitigation measures are required or recommended.

4.5.8 REFERENCES

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4.6 GEOLOGY AND SOILS

4.6.1 EXISTING CONDITIONS

Geotechnical Constraints

Consistent with County Standard Condition **SC GEO-1**, a Geotechnical Investigation was prepared in May 2017 by Geocon West, Inc. (Geocon), which is provided as Appendix F. The Geotechnical Investigation included a site reconnaissance, field exploration, laboratory testing, engineering analysis, and the preparation of the geotechnical investigation report. The report was prepared for the Project to evaluate subsurface soil and geologic conditions underlying the Project site and provide conclusions and recommendations pertaining to the geotechnical aspects of design and construction. Subsequently, a Geotechnical Investigation Update was prepared on May 4, 2020, by Geocon (Appendix G) to update the report for compliance with current building code requirements. The information contained in these geotechnical investigations is summarized in this section as appropriate.

Geologic Setting

Site Conditions

The Project site is a fully developed, irregularly-shaped parcel and is currently occupied by three pads that step down from northwest to southeast. Current topographic relief is gently southeasterly sloping, accommodating a total elevation change of roughly 48 vertical feet (Elevation 227 to Elevation 275 feet above mean sea level [MSL]). Changes in elevation between pads are accommodated by retaining walls and 2:1 (H:V) slopes (Geocon 2017).

The Project site is located on bedrock high along the eastern portion of the Coastal Plain of Orange County. The Project site is situated on the western flank of the foothills at the base of the Santa Ana Mountains north and west of Peters Canyon Wash. Published geologic maps indicate a northeasterly trending contact transects the site, separating early Miocene to late Eocene age bedrock on the northwest from alluvial deposits on the southeast. Based on a review of aerial photography the original grading of the site likely resulted in a wedge of artificial fill that thickens to the southeast overlying a former drainage channel (Geocon 2017).

Geologic Materials

Based on the field investigation conducted as part of the Project's Geotechnical Investigation as well as published geologic maps of the area, Geocon determined that the Project site is underlain by artificial fill and Holocene age alluvial deposits underlain by early Miocene to late Eocene age sedimentary bedrock of the undifferentiated Vaqueros and Sespe Formations. Detailed stratigraphic profiles of the materials encountered at the site are provided on the boring logs in Appendix A of the Geotechnical Investigation (Geocon 2017).

Artificial Fill

Artificial fill was encountered in Geocon's field explorations to a maximum depth of 8 feet below existing ground surface. The artificial fill generally consists of dark brown to dark yellowish brown sandy silt. The artificial fill is characterized as slightly moist and soft to firm. The fill is likely the result of past grading or construction activities at the site. Deeper fill may exist between excavations and in other portions of the site that were not directly explored.

Alluvium

Holocene age alluvium was encountered beneath the fill in three of the borings conducted as part of the Geotechnical Investigation (Geocon 2017). The fill consists primarily of sandy silt, clayey silt, silty sand, and silt with sand. The soil is primarily yellowish brown to dark yellowish brown, slightly moist and medium dense to dense or stiff to hard.

Undifferentiated Vaqueros and Sespe Formations

The artificial fill and alluvium are underlain by sedimentary bedrock of the early Miocene age to late Eocene age undifferentiated Vaqueros and Sespe Formations. The bedrock was encountered in the borings at depths ranging from 5 to 23 feet beneath the existing ground surface and generally consist of yellowish brown, olive brown, and gray interbedded sandstone and siltstone. The bedrock is slightly moist and soft to moderately hard, unfractured to intensely fractured, and fresh to moderately weathered.

Seismicity and Surface Fault Rupture

The numerous faults in Southern California include active, potentially active, and inactive faults. The criteria for these major groups are based on criteria developed by the California Geological Survey (CGS) for the Alquist-Priolo Earthquake Fault Zone Program. By definition, an active fault is one that has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault has demonstrated surface displacement during Quaternary time (approximately the last 1.6 million years) but has had no known Holocene movement. Faults that have not moved in the last 1.6 million years are considered inactive. The Project site is not within a state-designated Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards (DOC 2021a). No active or potentially active faults with the potential for surface fault rupture are known to pass directly beneath the Project site.

As with all of Southern California, the Project site has experienced historic earthquakes from various regional faults. The Project site could be subjected to strong ground shaking in the event of an earthquake. However, this hazard is common in Southern California and the effects of ground shaking can be mitigated if the proposed structures are designed and constructed in conformance with current building codes and engineering practices. The closest surface trace of an active fault to the site is the Whittier Fault located approximately 10.5 miles to the northeast (Geocon 2017). Other nearby active faults include the Elsinore Fault, the Newport-Inglewood Fault Zone, the Chino Fault, and the Central Avenue Fault located approximately 11.5 miles northeast, 12.0 miles southwest, 13.0 miles northeast, and 15.5 miles north-northeast of the site, respectively. The active San Andreas Fault Zone is located approximately 39 miles northeast of the Project site (Geocon 2017).

The closest potentially active fault to the site is the Peralta Hills Fault located approximately 5.0 miles to the northwest (Geocon 2017). Other nearby potentially active faults are the Pelican Hills Fault, the Norwalk Fault, and the Los Alamitos Fault located approximately 10.0 miles southwest, 13.5 miles northwest, and 17.5 miles northwest of the site, respectively (Geocon 2017). Several buried thrust faults, commonly referred to as blind thrusts, underlie the Los Angeles Basin (including the Orange County Coastal Plain) at depth. These faults are not exposed at the ground surface and are typically identified at depths greater than 3.0 kilometers, or approximately 9,842 feet. The October 1, 1987 moment magnitude scale (Mw) 5.9 Whittier Narrows earthquake and the January 17, 1994 Mw 6.7 Northridge earthquake were a result of movement on the Puente Hills Blind Thrust and the Northridge Thrust, respectively. These thrust faults and others in the greater Los Angeles area are not exposed at the surface and do not present a potential surface fault rupture hazard at the Project site; however, these deep thrust faults are considered active features capable of generating future earthquakes that could result in moderate to significant ground shaking at the Project site.

Liquefaction

Liquefaction is a phenomenon in which loose, saturated, relatively cohesionless soil deposits lose shear strength during strong ground motions. Primary factors controlling liquefaction include intensity and duration of ground motion, gradation characteristics of the subsurface soils, in-situ stress conditions, and the depth to groundwater. Liquefaction is typified by a loss of shear strength in the liquefied layers due to rapid increases in pore water pressure generated by earthquake accelerations. According to mapping prepared by the California Department of Conservation, the Project site is not within a liquefaction zone (DOC 2021a). Consolidated early Miocene to late Eocene age sedimentary bedrock, which is not prone to liquefaction, underlies the Project site at depths ranging from 5 to 23 feet beneath the existing ground surface. Based on these considerations, Geocon concluded that the potential for liquefaction and associated ground deformations beneath the Project site is very low (Geocon 2017).

Slope Stability

The existing topography at the Project site slopes gently southeast accommodating a total elevation change of roughly 48 vertical feet from Elevation 227 MSL to Elevation 275 (above MSL). Changes in elevations between pads are accommodated by retaining walls and 2:1 (H:V) graded slopes. Additionally, the Project site is not within an area identified as having a potential for seismic slope instability (Geocon 2017). There are no known landslides near the Project site, nor is the Project site in the path of any known or potential landslides. Also, according to mapping prepared by the California Department of Conservation, the Project site is not within a landslide zone (DOC 2021a). Therefore, the potential for slope stability hazards to adversely affect the Project was considered low by Geocon.

Subsidence

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. The Project site is not located within an area of known ground subsidence (Geocon 2017). No large-scale extraction of groundwater, gas, oil, or

geothermal energy is occurring or planned at the Project site or in the general Project site vicinity. Therefore, there is little potential for ground subsidence at the Project site.

Groundwater

According to the Geotechnical Investigation, the Project site is elevated above the local alluviated groundwater basin and is underlain by sedimentary bedrock units that are not considered water-bearing (Geocon 2017). The Geotechnical Investigation found no available historic or current groundwater data for the Project site or the immediate vicinity. At the time of Geocon's field investigation, no evidence of near surface water, such as seeps, springs, or phreatophytes were observed at the Project site. Groundwater was not encountered in Geocon's field explorations, which drilled to a maximum depth of 33½ feet below the existing ground surface. Therefore, groundwater is neither expected to be encountered during construction or to impact foundation excavations or grading operations (Geocon 2017).

Paleontological Resources

An online paleontological records search using the Paleobiology Database (paleobioDB.org) in 2021 indicated four vertebrate paleontological resource localities within a two-mile radius of the Project site (PBDB 2021). Invertebrate fossils, including the index fossils *Turritella inezana* and *Rapana vaquerosensis*, have been recovered from multiple localities near the Project area. Of these, none have been recorded within or adjacent to the Project area.

4.6.2 REGULATORY SETTING

Federal

International Building Code

The International Building Code (IBC) is the national model building code providing standardized requirements for construction. The IBC establishes consistent construction guidelines for the nation, and has been adopted with amendments into the California Building Code. The IBC contains codes related to geology and soils, including Chapter 16 (structural design) and Chapter 18 (soils and foundations) (ICC 2021).

State

California Building Code

The 2019 California Green Building Standards Code (CBC; 24 CCR, Part 11), also known as the CALGreen code, is promulgated under the California Code of Regulations, Title 24 (Parts 1 through 12) and is administered by the California Building Standards Commission (CBSC 2018). The national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by State agencies and local governing bodies. The CBC establishes general standards for the design and construction of buildings, including provisions related to seismic safety. The CBC provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures

in its jurisdiction. Chapter 18 of the California Building Code, Soils and Foundations, specifies the level of soil investigation required by law in California. Requirements in Chapter 18 apply to building and foundations systems and consider reduction of potential seismic hazards.

Alquist-Priolo Earthquake Fault Zoning Act of 1972

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) was adopted by the State of California in 1972 in order to mitigate surface fault rupture hazards along known active faults (California Public Resources Code [PRC] Section 2621 et. seq.). The purpose of the Alquist-Priolo Act is to reduce the threat to life and property—specifically from surface fault rupture—by preventing the construction of buildings used for human occupancy on the surface trace of active faults. Under the Alquist-Priolo Act, the California Geological Survey has defined an “active” fault as one that has had surface displacement during the past 11,700 years (Holocene time). This law directs the State Geologist to establish Earthquake Fault Zones (known as “Special Studies Zones” prior to January 1, 1994) to regulate development in designated hazard areas. In accordance with the Alquist-Priolo Act, the State has delineated “Earthquake Fault Zones” along identified active faults throughout California. Prior to permitting, City and County jurisdictions must require a geologic investigation to demonstrate that a proposed development project, which includes structures for human occupancy, is adequately set back. An evaluation and written documentation of the site must be prepared by a licensed geologist. If the results of the report determine there is an active fault, no structure for human occupancy can be placed over the trace of the fault and a set back from the fault (generally at least 50 feet) is required (Geocon 2017). The Seismic Hazards Mapping Act (SHMA) was passed in 1990 and directs the State of California Department of Conservation Division of Mines and Geology to identify and map areas subject to earthquake hazards such as liquefaction, earthquake-induced landslides, and amplified ground shaking (PRC Sections 2690–2699.6). Passed by the State legislature after the 1989 Loma Prieta Earthquake, the SHMA is aimed at reducing the threat to public safety and minimizing potential loss of life and property in the event of a damaging earthquake event. Seismic Hazard Zone Maps are a product of the resultant Seismic Hazards Mapping Program and are produced to identify Zones of Required Investigation; most developments designed for human occupancy in these zones must conduct site-specific geotechnical investigations to identify the hazard and to develop appropriate mitigation measures prior to permitting by local jurisdictions.

The SHMA establishes a statewide public safety standard for the mitigation of earthquake hazards. The California Geological Survey’s Special Publication 117A, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, provides guidance for the evaluation and mitigation of earthquake-related hazards for projects in designated zones of required investigations (CGS 2008).

4.6.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would result in significant impacts related to geology and soils if it would:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.
 - (ii) Strong seismic ground shaking.
 - (iii) Seismic-related ground failure, including liquefaction.
 - (iv) Landslides.
- b) Result in substantial soil erosion or the loss of topsoil.
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- d) Be located on expansive soils, as defined in Table 18-1-B of the California Building Code (1994), creating substantial direct or indirect risks to life or property.
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal system where sewers are not available for the disposal of waste water?
- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

4.6.4 IMPACT ANALYSIS

- a) *Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- (i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.*

Less Than Significant Impact. According to the Geotechnical Investigations conducted by Geocon, there is no presence of active faulting within the Project site (Geocon 2017, 2020). Furthermore, the Project site does not occur within an "Earthquake Fault Zone," as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act (DOC 2021a). There are no known faults that underlie the Project site. The closest surface trace of an active fault to the Project site is the Whittier Fault located approximately 10.5 miles to the northeast. Therefore, the Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. The

Project would result in less than significant impacts related to this threshold, and no mitigation measures are either required or recommended.

(ii) Strong seismic ground shaking?

Less Than Significant With Mitigation Incorporated. The Project Site, as with the entire Southern California region, is subject to secondary effects from earthquakes. The closest surface trace of an active fault to the Project site is the Whittier Fault located approximately 10.5 miles to the northeast). In addition to the Whittier Fault, other nearby active faults in proximity to the Project site include the Elsinore Fault located approximately 11.5 miles northeast of the Project site, the Newport-Inglewood Fault Zone located approximately 12 miles southwest of the Project site, the Chino Fault located approximately 13 miles northeast of the Project site, and the Central Avenue Fault located approximately 15.5 miles north-northeast of the Project site (Geocon 2017). Additionally, the active San Andreas Fault Zone is located approximately 39 miles northeast of the Project site. The closest potentially active fault to the Project site is the Peralta Hills Fault located approximately five miles to the northwest. Other nearby potentially active faults include the Pelican Hill Fault located approximately 10 miles southwest of the Project site, the Norwalk Fault located approximately 13.5 miles northwest of the Project site, and the Los Alamitos Fault located approximately 17.5 miles northwest of the Project site (Geocon 2017).

Implementation of the Project would not change the intensity of ground shaking that would occur on the Project Site during a seismic event, but it would result in new exposure for the new residents and residential structures. The proposed buildings would be designed in accordance with the 2019 California Green Building Standards Code (CBSC 2018). The CBC contains minimum standards regulating the design and construction of excavations, foundations, retaining walls, and other building elements to control the effects of seismic ground shaking and adverse soil conditions. The CBC also includes provisions for earthquake safety based on factors such as occupancy type, the types of soil and rock on-site, and the strength of ground motion that may occur at the Project site. Project implementation would also occur consistent with the recommendations outlined in the Geotechnical Investigations prepared for the Project. Based on the Geotechnical Investigations, the Project is geotechnically feasible provided that the recommendations in those reports are reviewed in the context of the final Project design and are incorporated during the Project's construction phase. Seismic design parameters have been included in the Geotechnical Investigations based on the seismic zone, soil profile, and proximity of known faults to the Project Site, which provide the minimum design procedures to avoid significant cosmetic damage structures (Geocon 2017, 2020). Compliance with the applicable regulations, and proper grading, design, and building construction methods specified in the Geotechnical Investigations as required by **MM GEO-1** would reduce potentially significant impacts that may result from strong seismic ground shaking at the Project Site to less than significant levels.

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

Less Than Significant Impact. According to mapping prepared by the California Department of Conservation, the Project site is not within a liquefaction zone (DOC 2021a). Consolidated early Miocene to late Eocene age sedimentary bedrock, which is not prone to liquefaction, underlies the Project site at depths ranging from 5 to 23 feet beneath the existing ground surface. Based on these considerations, Geocon concluded that the potential for liquefaction and associated ground deformations beneath the Project site is very low (Geocon 2017). Therefore, there would

be a less than significant impact related to seismic-related ground failure, including liquefaction, and no mitigation measures are either required or recommended.

(iv) Landslides?

Less than Significant with Mitigation Incorporated. Earthquake-induced landslides occur in areas where previous landslides have occurred and in areas where the topographic, geologic, geotechnical, and subsurface groundwater conditions contribute to permanent ground displacements. The Project site is not within an area identified in the Seismic and Geologic Hazards Component of the Safety Element of the County of Orange General Plan as having a potential for slope instability or located within an area with a potential for seismic slope instability (Geocon 2017, County of Orange 2021). The topography of the site and surrounding vicinity generally slopes to the south-southeast with an elevation ranging from approximately 227 feet to 275 feet above mean sea level (Geocon 2017). There are no known landslides near the Project site according to the California Department of Conservation's Landslide Inventory mapper (DOC 2021b). The potential for slope stability hazards to adversely affect the Project is considered low according to the Geotechnical Investigation (Geocon 2017). However, the Geotechnical Investigation recommends further assessment of the underlying bedrock at the Project site during future design phases and prior to grading to address any potentially significant impacts associated with unknown landslide hazards. Therefore, implementation of **MM GEO-1** would reduce potential impacts to less than significant levels related to landslides.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. The Project would grade and develop the site with new impervious surfaces and new pervious landscaped areas. Project construction would expose soils on the site and would require the hauling of soil off-site, which could result in soil erosion and the loss of topsoil if not implemented consistent with regulatory requirements. The largest source of erosion and topsoil loss is uncontrolled drainage during construction. As discussed in more detail in Section 4.9, Hydrology and Water Quality, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into "Waters of the U.S.". Construction activities shall be conducted in compliance with the statewide NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No 2012-0006-DWQ, NPDES No. CAS000002), adopted by the State Water Resources Control Board on July 17, 2012. In compliance with the NPDES permit, erosion potential during construction of the Project would be managed with Best Management Practices (BMPs) implemented on the Project site as part of a Storm Water Pollution Prevention Plan during construction activities in accordance with NPDES requirements. Implementation of the BMPs would ensure that construction -related erosion impacts would be less than significant.

Currently, the Project site is 32.6 percent pervious and 67.4 percent impervious. Following completion of the Project, the site would be 40.3 percent pervious and 59.7 percent impervious (Hamers & Associates 2020). The 7.7 percent reduction in impervious surface area with the Project would result in reduced storm water runoff generated on the Project site. As further discussed in Section 4.9, Hydrology and Water Quality, operational BMPs, including french drains and an underground infiltration trench, have been incorporated into the Project's site design to reduce the potential for erosion and the transport of sediment off site. Long term, the Project's contribution to erosion of channels downstream is expected to be less than significant because

the stormwater runoff volume with the Project would be less than the existing condition. This is due to the decrease in the amount of impervious area on the site after Project development. Therefore, impacts related to soil erosion due to construction and operation of the Project would be less than significant, and no mitigation measures are either required or recommended.

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

Less than Significant with Mitigation Incorporated. The Project's Geotechnical Investigations found that the Project was geotechnically feasible, with implementation of grading and foundation recommendations (Geocon 2017, 2020). As noted above, the Project is not in a location susceptible to landslides or liquefaction. Also, the Project site is not located within an area of known ground subsidence (Geocon 2017). Any potential for lateral spreading or collapse would be mitigated through the implementation of the foundation design and grading recommendations contained in the Project's Geotechnical Investigations, as specified in **MM GEO-1** (Geocon 2017, 2020). With implementation of **MM GEO-1**, potentially significant impacts related to unstable soils would be reduced to less than significant levels.

- d) Would the Project be located on expansive soils, as defined in Table 18-1-B of the California Building Code (1994), creating substantial direct or indirect risks to life or property?*

Less than Significant with Mitigation Incorporated. Expansive soils are materials that, when subject to a constant load, are prone to expand when exposed to water. The hazard associated with expansive soils is that they can overstress and cause damage to the foundation of buildings set on top of them. The Geotechnical Investigation identified that the upper 5 feet of existing site soils encountered are considered to have a "medium" expansive potential and are classified as "expansive" based on the CBC Section 1803.5.3 (Geocon 2017). With implementation of the standard design and construction measures associated with the slab and foundation subgrade, as required by **MM GEO-1**, potentially significant impacts related to expansive soils would be reduced to less than significant levels.

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

No Impact. The Project site is currently served by the East Orange County Water District's municipal wastewater system and would continue to convey wastewater to the distribution system. No septic systems would be required for the Project. Therefore, no impacts would result related to this threshold, and no mitigation measures are either required or recommended.

- f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less Than Significant Impact. The Project site is located on the fully developed Tustin Hills Racquet and Pickleball Club and limited native soils remain at the surface of the site. Since the Project site has been previously graded and disturbed; however, the possibility exists that

unknown paleontological sites are present below the artificial fill that would be disturbed by Project construction.

Consistent with County Standard Condition **SC GEO-1**, a Geotechnical Investigation was prepared in May 2017 by Geocon West, Inc. (Geocon), which is provided as Appendix F. The underlying bedrock sediments at the Project site are categorized as having high paleontological sensitivity; therefore, there is the potential to uncover unknown paleontological resources during ground-disturbing activities. According to the Geotechnical Investigations, Project grading will likely extend into Quaternary Alluvium and possibly Sespe/Vaqueros Formation bedrock, which have a potential to yield paleontological resources. The Project would implement **SC GEO-2** which requires monitoring of grading and excavation activities in the native soils and salvage of fossils should they be found on-site. If the paleontological resources discovered during construction are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant and the County, to ensure proper exploration and/or salvage. With the implementation of the standard conditions, the Project's potential impacts to paleontological resources would be less than significant, and no mitigation measures are either required or recommended.

4.6.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As described above, the Project would result in less than significant impacts related to rupture of a known earthquake fault, seismic-related ground failure, and erosion and loss of topsoil. Potentially significant impacts related to strong seismic ground shaking, landslides, lateral spreading, and expansive soils for the Project would be mitigated through implementation of **MM GEO-1**, which requires compliance with the applicable regulations and implementation of proper grading, design, and building construction methods that are outlined in the Project's Geotechnical Investigations (Geocon 2017, 2020). Given that paleontological resources could be encountered during Project construction, **SC GEO-2** will be implemented, which requires monitoring of grading and excavation activities in the native soils and salvage of fossils should they be found on-site.

All of the cumulative projects that proposed to build new structures would be required by the agency issuing their building permits to prepare a geotechnical report to evaluate and mitigate geotechnical hazards, if needed. Therefore, no significant cumulative impacts related to geotechnical hazards would result from the Project and cumulative project collectively.

It is likely that most, if not all, of the cumulative projects would result in native ground disturbance that could encounter and affect paleontological resources. During each projects' entitlement process, it is the responsibility of the CEQA Lead Agency reviewing each project to identify potentially significant impacts, including potential paleontological resource impacts, and to require mitigation measures if needed, such as paleontological resources if appropriate. Therefore, no significant cumulative impacts related to paleontological resources would result from the Project and cumulative projects when considered collectively.

4.6.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

- SC GEO-1** County Standard Condition G01:
Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, Building and Safety, for approval. The report shall include the information and be in the form as required by the Grading Code and Grading Manual.¹
- SC GEO-2** County Standard Condition A04:
Prior to the issuance of the first grading permit, the project applicant shall provide written evidence to the Manager, Building and Safety, that applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant, to ensure proper exploration and/or salvage. Prior to the release of the grading bond the applicant shall submit the paleontologist's follow-up report for approval by the Manager, Permit Services. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point of identification and offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by Manager, Permit Services. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Permit Services.

¹ The *Grading Manual* provides detailed compilation of rules, procedures, and interpretations necessary to carry out the provisions of the *OC Grading and Excavation Code*. The *Grading Manual* contains provisions specifying what needs to be addressed in geotechnical studies. Evaluation of the grading plans in compliance with the requirements of the Grading Manual would ensure the Project is in compliance with the OC Grading and Excavation Code.

Mitigation Measures

MM GEO-1 Prior to approval grading plans, the Applicant shall demonstrate, to the satisfaction of the Manager, Building and Safety, that the recommendations in the Geotechnical Investigation, Geotechnical Investigation Update, and in any future geotechnical reports have been fully and appropriately incorporated (Geocon 2017, 2020). These recommendations include, but are not limited to, the following geotechnical areas:

- General
- Soil and Excavation Characteristics
- Minimum Resistivity, pH, and Water-Soluble
- Grading
- Slope Construction
- Shrinkage
- Foundation Design
- Foundation Settlement
- Miscellaneous Foundations
- Lateral Design
- Concrete Slabs-on-Grade
- Preliminary Pavement Recommendations
- Retaining Walls
- Retaining Wall
- Temporary Excavations
- Stormwater Infiltration
- Surface Drainage
- Plan Review

4.6.7 SIGNIFICANCE AFTER MITIGATION

With implementation of mitigation measures **MM GEO-1**, potentially significant impacts related to geology and soils would be reduced to less than significant.

4.6.8 REFERENCES

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4.7 GREENHOUSE GAS EMISSIONS

4.7.1 EXISTING CONDITIONS

Global Climate Change and Greenhouse Gases

Climate change is a recorded change in the Earth's average weather measured by variables such as wind patterns, storms, precipitation, and temperature. Historical records show that global temperature changes have occurred naturally in the past, such as during previous ice ages. The year 2020 ranks as Earth's hottest year on record, tying 2016.¹ Overall, Earth's average temperature has risen more than 2 degrees Fahrenheit since the 1880s. Continuing the planet's long-term warming trend, the year's globally averaged temperature was 1.84 degrees Fahrenheit (1.02 degrees Celsius) warmer than the baseline 1951–1980 mean. The last seven years have been the warmest seven years on record, typifying the ongoing and dramatic warming trend (NASA 2021).

The global atmospheric concentration of carbon dioxide (CO₂), the most abundant greenhouse gas (GHG), has increased from a pre-industrial value of about 280 parts per million (ppm) in 1750 to a seasonally-adjusted 418.94 ppm in June 2021. The National Oceanic and Atmospheric Administration Annual Greenhouse Gas Index (AGGI) in 2020 was 1.47, which means the warming influence of GHGs has increased 47 percent since 1990. It took about 240 years for the AGGI to go from zero to one, and 30 years to increase by another 47 percent (ESRL 2021).

Greenhouse Gases

GHGs are global pollutants and are therefore unlike criteria air pollutants such as ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and toxic air contaminants (TACs), which are pollutants of regional and local concern (see Section 4.2, Air Quality, of this Environmental Impact Report [EIR]). While pollutants with localized air quality effects have relatively short atmospheric lifetimes (generally on the order of a few days), GHGs have relatively long atmospheric lifetimes, ranging from one year to several thousand years. Long atmospheric lifetimes allow for GHGs to disperse around the globe. Therefore, GHG effects are global, as opposed to the local and/or regional air quality effects of criteria air pollutant and TAC emissions.

GHGs, as defined under California's Assembly Bill (AB) 32, include CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO₂. For example, as CH₄ and N₂O are approximately 25 and 298 times (respectively) more powerful than CO₂ (CO₂ has a GWP of 1) in their ability to trap heat in the atmosphere. The GWP of each GHG is multiplied by the amount of each gas to calculate the total Carbon dioxide equivalent (CO₂e). CO₂e is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP.

¹ A separate, independent analysis by the National Oceanic and Atmospheric Administration (NOAA) concluded that 2020 was the second-warmest year in their record, behind 2016.

General Environmental Effects of Global Climate Change

Executive Order (EO) S-3-05 mandates the preparation of biennial science assessment reports on climate change impacts and adaptation options for California. Executive Order S-13-08 directs the California Natural Resources Agency (CNRA) to develop a State Climate Adaptation Strategy and to provide State land use planning guidance related to sea level rise and other climate change impacts. Reports resulting from these directed actions include the Climate Action Team Report to the Governor and Legislature and the California Climate Adaptation Strategy (CalEPA 2010; CNRA 2009a). These studies report that global warming in California is anticipated to impact resources including, but not limited to, those discussed below.

- **Public Health.** Many Californians currently experience the worst air quality in the nation, and climate change is expected to make matters worse. Higher temperatures would increase the frequency, duration, and intensity of conditions conducive to air pollution formation. If global background O₃ levels increase as predicted under some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by more frequent wildfires, which emit fine particulate matter that can travel long distances. Rising temperatures and more frequent heat waves would increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress. Climate change may also increase asthma rates and the spread of infectious diseases and their vectors, as well as challenge food and water supplies. Children, the elderly, people with chronic heart or lung disease, outdoor workers, people who exercise outdoors and the economically disadvantaged would be particularly vulnerable to these changes. In addition, more frequent extreme weather events could also result in increased injuries and deaths from these phenomena.
- **Energy.** Increasing mean temperature and more frequent heat waves will drive up demand for cooling in summer; this new energy demand will only be partially offset by decreased demand for heating in winter. Hydropower, which currently provides 15 percent of in-state generation, would be threatened by declining snowpack, which serves as a natural reservoir for hydropower generation in the spring and summer. Winter storms, earlier snowmelt, and greater runoff may combine to cause flooding, which could, in turn, damage transmission lines and cause power outages.
- **Water Resources.** Rising temperatures, less precipitation, and more precipitation falling as rain instead of snow could severely diminish snowpack. Because the Sierra Nevada snowpack provides most of California's available water, this potential loss would increase the risk of summer water shortages and would hamper water supplies and hydropower generation. Rising sea levels would push saltwater into California's estuaries, wetlands, and groundwater aquifers, threatening the water quality and reliability in the Sacramento/San Joaquin River Delta—a major California freshwater supply. Extreme precipitation and flooding could also damage water quality by creating sudden increases in runoff. Moreover, warming would increase evapotranspiration rates from plants, soil, and open water surfaces, which would result in greater demand for irrigation. Overall, climate change would reduce California's water supplies even as its growing population requires additional resources.
- **Sea Level and Flooding.** Sea level at California's coasts is expected to rise by 11 to 18 inches above 2000 levels by 2050 and by 23 to 55 inches by 2100. If realized, these increases would create more frequent and higher storm surges; would erode some

coastal areas; and would increase pressure on existing levees. These increases would create a greater risk of flooding in previously untouched inland areas. Consequently, continued development in vulnerable coastal areas would put more people and infrastructure at risk.

- **Agriculture.** Although higher CO₂ levels can stimulate plant production and increase plant water-use efficiency, in the long-term, climate change would reduce the quantity and quality of agricultural products statewide. As temperatures rise, farmers will face greater water demand for crops and a less reliable and smaller water supply, as well as increased competition from urban water users. Sea level rise may cause saltwater intrusion in the Delta region, making it difficult to raise certain crops. Rising temperatures will likely aggravate O₃ pollution, interfering with plant growth and making plants more susceptible to disease and pests. In addition, warming would reduce the number of colder hours needed for fruit and nut production; would shift pest and weed ranges; would alter crop pollinator timing; and would increase the frequency of droughts, heat waves, and floods. Higher average temperatures would also increase mortality and decrease productivity in livestock.
- **Forestry.** California timber production has declined over the past few decades due, in part, to warming and increased wildfires. While further warming may increase production for some species in some locations, climate change is expected to reduce overall forest growth. Increasing average temperatures and drought frequency would result in more wildfires and greater burned areas, while less frequent and more intense rainfall would increase soil erosion and landslides. Higher temperatures and less water would force many tree species to shift their ranges; those that run out of livable habitat may die out. Pests, diseases, and invasive species may also colonize new areas, further challenging forest health and biodiversity.
- **Ecosystems.** Rising average temperatures would subject plants and animals to greater thermal stress, causing some species to adapt or shift their ranges, while others may face extinction. Invasive species may also shift their ranges, threatening native species. Changing temperatures would also alter the timing of plant flowering and insect emergence, damaging species' ability to reproduce. Changing precipitation patterns would impact aquatic and riparian ecosystems by reducing snowpack, stream flow, and groundwater, while increasing the frequency of droughts, floods, and wildfires. As sea levels rise, some coastal habitats may be permanently flooded or eroded, and saltwater intrusion into freshwater resources may threaten terrestrial species. Changes in ocean circulation and temperature, ocean acidification, and increased runoff and sedimentation would threaten pelagic species. In sum, continued global warming would alter natural ecosystems and threaten California's biological diversity.

Existing Greenhouse Gas Emissions

The Project site is currently used as a tennis club, with a pool, spas, and banquet facilities. GHGs are emitted from current operations at the Project site. Existing GHG emissions would be derived from the following sources: area, energy, mobile, waste, and water.

4.7.2 REGULATORY SETTING

Federal

U.S. Environmental Protection Agency Findings

On December 7, 2009, the U.S. Environmental Protection Agency (USEPA) Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act.

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

The findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emissions standards for vehicles (USEPA 2021a). A light-duty vehicle is defined any motor vehicle with a gross vehicle weight of 6,000 pounds or less (CARB 2021a).

Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The USEPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) have been working together on developing a National Program of regulations to reduce GHG emissions and to improve the fuel economy of light-duty vehicles. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking establishing standards for 2012 through 2016 model year vehicles. On October 15, 2012, the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. The rules require these vehicles to meet an estimated combined average emissions level of 295 grams of CO₂ per mile by 2012, decreasing to 250 grams per mile by 2016, and finally to an average industry fleet-wide level of 163 grams per mile in model year 2025. The 2016 standard is equivalent to 35.5 miles per gallon (mpg) and the 2025 standard is equivalent to 54.5 mpg if the levels were achieved solely through improvements in fuel efficiency. The agencies expect, however, that a portion of these improvements will occur due to air conditioning technology improvements (i.e., they will leak less) and due to the use of alternative refrigerants, which would not contribute to fuel economy. These standards would cut GHG emissions by an estimated 2 billion metric tons and 4 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2017–2025). The combined USEPA GHG standards and NHTSA Corporate Average Fuel Economy (CAFE) standards resolve previously conflicting requirements under both federal programs and the standards of the State of California and other States that have adopted the California standards (USEPA and NHTSA 2012).

On September 19, 2019, NHTSA and the USEPA issued a final action entitled the "One National Program Rule" to enable the federal government to provide nationwide uniform fuel economy

and GHG emission standards for automobile and light duty trucks. This action finalizes critical parts of the Safer, Affordable, Fuel-Efficient (SAFE) Vehicles Rule that was first proposed in August 2018. In this proposal, the agencies proposed new and amended GHG and CAFE standards for model year 2021 to 2026 light duty vehicles (USEPA and NHTSA 2019).

In this action, USEPA withdrew the Clean Air Act waiver that had been granted to the State of California in January 2013 for the State's Advanced Clean Car program with respect to GHG and Zero Emission Vehicle (ZEV) elements. In November 2019, California, 21 other states, the District of Columbia, and four California cities filed a petition for the USEPA to reconsider SAFE-1. A petition for reconsideration was also filed by several environmental groups.

On April 28, 2021, USEPA published a Notice of Reconsideration: California State Motor Vehicle Pollution Control Standards; Advanced Clean Car Program; Reconsideration of a Previous Withdrawal of a Waiver of Preemption; Opportunity for Public Hearing and Public Comment. The public comment period closed July 6, 2021 (USEPA 2021b).

State

Assembly Bill 1493 (Mobile Source Reductions)

AB 1493, adopted September 2002, also known as Pavley I, requires the development and adoption of regulations to achieve the maximum feasible reduction of GHGs emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. The emission standards have become increasingly more stringent through the 2016 model year. California is also committed to further strengthening these standards beginning in 2017 to obtain a 45 percent GHG reduction from 2020 model year vehicles (CARB 2021b). Regulations to make California emissions standards for model year 2017 and beyond consistent with federal standards were adopted in 2012 and are discussed further below.

California Air Resources Board's Advanced Clean Cars Program

In January 2012, California Air Resources Board (CARB) approved the Advanced Clean Cars Program, an emissions-control program for model year 2017 through 2025. The program combines the control of smog, soot and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions. The program also requires car manufacturers to offer for sale an increasing number of ZEVs each year, including battery electric, fuel cell, and plug-in hybrid electric vehicles. In March 2017, CARB adopted GHG standards for 2022 through 2025 model years and directed staff to begin rule development for 2026 and subsequent model years (CARB 2021c).

Executive Order S-3-05 (Statewide GHG Targets)

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05, which proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce snowpack in the Sierra Nevada Mountains; could further exacerbate California's air quality problems; and could potentially cause a rise in sea levels. In an effort to avoid or reduce the impacts of climate change, Executive Order S-3-05 calls for a reduction in

GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

However, executive orders do not have the same status as a law because in California's constitutional system, it is the Legislature, not the Governor, who is entrusted with the role of making statewide laws. The Legislature declined to include the Executive Order's 2050 goal in AB 32 (discussed below), and again declined to use the EO's 2050 goal in adopting Senate Bill (SB) 375 (discussed below), nor has it incorporated it in any implementing legislation or applicable plans. Additionally, although CARB has the requisite authority to adopt whatever regulations are necessary beyond the AB 32 horizon year 2020 to meet the target set forth in S-3-05, the agency has not done so. Since the Legislature has never enacted EO S-3-05's 2050 target, and no expert agency has interpreted the California Environmental Quality Act (CEQA) to require it, the 2050 target has only the force and effect of an executive order issued by a former Governor. If the Legislature has delegated any of its authority to define CEQA's requirements, it delegated that authority to the Governor's Office of Planning and Research (OPR).

Senate Bill 97 and the CEQA Guidelines

Pursuant to SB 97, OPR developed and CNRA adopted proposed amendments to the CEQA Guidelines (CEQA Amendments) for the feasible mitigation of GHG emissions and their effects. The CEQA Amendments became effective on March 18, 2010.

The CEQA Amendments for Greenhouse Gas Emissions state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Amendments note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (CNRA 2009b). Section 15064.4(b) of the CEQA Guidelines provides that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment (CNRA 2009b):

- The extent a project may increase or reduce GHG emissions as compared to the environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- 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.

All of these are considered in the impact analysis presented in this section. The revisions to Appendix G, Environmental Checklist Form, of the CEQA Guidelines, which is often used as a basis for lead agencies' selection of significance thresholds, do not prescribe specific thresholds. Rather, Appendix G of the CEQA Guidelines asks whether the project would conflict with a plan, policy, or regulation adopted to reduce GHG emissions or would generate GHG emissions that would significantly affect the environment, indicating that the determination of what is a significant effect on the environment should be left to the lead agency. Accordingly, the CEQA Amendments do not prescribe specific methodologies for performing an assessment; they do not establish specific thresholds of significance; and they do not mandate specific mitigation

measures. Rather, the CEQA Amendments emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009b).

The CEQA Amendments indicate that lead agencies should consider all feasible means, supported by substantial evidence and subject to monitoring and reporting, of mitigating the significant effects of GHG emissions. As pertinent to the Project, these potential mitigation measures, set forth in Section 15126.4(c) of the CEQA Guidelines, may include (1) measures in an existing plan or mitigation program for the reduction of GHG emissions that are required as part of the lead agency's decision; (2) reductions in GHG emissions resulting from a project through implementation of project design features; (3) off-site measures, including offsets, to mitigate a project's emissions; and (4) carbon sequestration measures (CNRA 2009b).

Among other things, the CNRA noted in its Public Notice for these changes that impacts of GHG emissions should focus on the cumulative impact on climate change. The Public Notice states (CNRA 2009):

While the Proposed Amendments do not foreclose the possibility that a single project may result in greenhouse gas emissions with a direct impact on the environment, the evidence before [CNRA] indicates that in most cases, the impact will be cumulative. Therefore, the Proposed Amendments emphasize that the analysis of greenhouse gas emissions should center on whether a project's incremental contribution of greenhouse gas emissions is cumulatively considerable.

Thus, the CEQA Amendments continue to make clear that the significance of greenhouse gas emissions is most appropriately considered on a cumulative level.

Assembly Bill 32 (Statewide GHG Reductions)

In furtherance of the goals established in EO S-3-05, the California Legislature adopted the public policy position that global warming is "a serious threat to the economic well-being, public health, natural resources, and the environment of California" (California Health and Safety Code, Section 38501). The public policy statements became law with the enactment of the California Global Warming Solutions Act of 2006 (AB 32) in September 2006, after considerable study and expert testimony before the Legislature. The law instructs CARB to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. AB 32 directed CARB to set a GHG emission limit based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. The scoping plan is described further below.

Executive Order B-30-15 (Statewide Interim GHG Targets)

California EO B-30-15 (2015) set an "interim" statewide emission target to reduce GHG emissions to 40 percent below 1990 levels by 2030, and directed State agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the Executive Order directed CARB to update the Scoping Plan to express this 2030 target in metric tons.

Senate Bill 32/Assembly Bill 197

SB 32, signed September 8, 2016, implements a goal of EO B-30-15. Under SB 32, in “adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions,” CARB must ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. SB 32's findings state that CARB will “achieve the state’s more stringent greenhouse gas emission reductions in a manner that benefits the state’s most disadvantaged communities and is transparent and accountable to the public and the Legislature.” AB 197, a companion to SB 32, adds two members to the CARB and requires measures to increase transparency about GHG emissions, climate policies, and GHG reduction actions.

California Air Resources Board Scoping Plan

On December 11, 2008, CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California’s GHG emissions. CARB determined that achieving the 1990 emission level would require a reduction of GHG emissions of approximately 28.5 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as “business as usual”). The Scoping Plan evaluates opportunities for sector-specific reductions; integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities; identifies additional measures to be pursued as regulations; and outlines the role of a cap-and-trade program.

First Update to the Climate Change Scoping Plan

CARB approved the final “First Update to the Climate Change Scoping Plan” on May 22, 2014. The first update describes California’s progress towards AB 32 goals, stating that “California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32”. Specifically, “if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts [MW] of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050” (CARB 2014). Reducing the “business as usual” condition of 509 metric tons carbon dioxide equivalent (MMTCO_{2e}) to the 1990 emissions level of 431 MMTCO_{2e} will require a reduction of 78 MMTCO_{2e}, or approximately a 15.3 percent reduction (compared to a 28.5 percent reduction as set forth in the original Scoping Plan but not directly comparable because of the change in methodology).

Second Update to the Climate Change Scoping Plan

CARB prepared a second update to the Scoping Plan to reflect the 2030 target established in Executive Order B-30-15 and in Senate Bill 32 (discussed above). The Final Proposed 2017 Scoping Plan was published in November 2017, and the third public Board Meeting for the Proposed Scoping Plan was held on December 14, 2017, where the Final Proposed 2017 Climate Change Scoping Plan (Second Update to the Climate Change Scoping Plan, or 2017 Scoping Plan Update) was adopted.

The 2017 Scoping Plan Update includes new statutory GHG reduction requirements that were not included in the current Scoping Plan, including Senate Bill 32 (discussed below) which sets a 40 percent GHG reduction target below 1990 GHG levels to be achieved by 2030, SB 350 (which sets a 50 percent reduction in GHG emissions from electricity generation and other energy uses in existing structures, and a 50 percent renewable energy portfolio requirement), and SB 650 (which establishes priority GHG reduction targets for designated types of greenhouse gases such as methane). The key elements of the 2017 Scoping Plan Update proposal call for further GHG reductions from the refinery sector specifically, further reductions from other stationary sources through either a renewed and expanded cap and trade or carbon tax program, further reductions from other sectors such as transportation technologies and services, water and solid waste conservation and management, and land uses in both open space and urban areas (CARB 2017).

2022 Scoping Plan Update

The 2022 Scoping Plan Update will assess progress towards achieving the Senate Bill 32 2030 target and lay out a path to achieve carbon neutrality by mid-century. The first public workshops for the 2022 Scoping Plan Update were held in June 2021 (CARB 2021d).

Senate Bill 375 (Land Use Planning)

Signed September 30, 2008, SB 375 provides for a new planning process to coordinate land use planning and regional transportation plans (RTPs) and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires Metropolitan Planning Organizations, including the Southern California Association of Governments (SCAG), to incorporate a Sustainable Communities Strategy (SCS) in their regional transportation plans that will achieve GHG emission reduction targets set by CARB. There are two mutually important facets to SB 375: reducing vehicle miles traveled and encouraging more compact, complete, and efficient communities for the future. SB 375 also includes provisions for exemptions from or streamlined CEQA review for projects classified as transit priority projects (SCAG 2016). See additional discussion of the SCAG plan under “Regional” regulations below.

Senate Bills 1078, 107, and SBX1-2 (Renewable Portfolio Standards)

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and again in 2011 under SBX1-2, California’s Renewable Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. Initially, the Renewable Portfolio Standard provisions applied to investor -owned utilities, community choice aggregators, and electric service providers. SBX1-2 added, for the first time, publicly owned utilities to the entities subject to RPS.

Senate Bill 350

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of EO B-30-15. The objectives of SB 350 are as follows:

- (1) To increase from 33 percent to 50 percent, the procurement of our electricity from renewable sources; and

- (2) To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation (CEC 2021a).

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 requires renewable energy and zero-carbon resources to supply 100 percent of electric retail sales to end-use customers and 100 percent of electricity procured to serve state agencies by December 31, 2045. This policy requires the transition to zero-carbon electric systems that do not cause contributions to increase of GHG emissions elsewhere in the western electricity grid (CEC 2021b). SB 100 also creates new standards for the RPS goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030.

Executive Order B-55-18

On September 10, 2018, Governor Brown also signed California EO B-55-18, which sets a new statewide goal of carbon neutrality as soon as possible, and no later than 2045, and achieve net negative emissions thereafter. EO B-55-18 was added to the existing Statewide targets of reducing GHG emissions, including the targets previously established by Governor Brown of reducing emissions to 40 percent below 1990 levels by 2030 (EO B-30-15 and SB 32), and by Governor Schwarzenegger of reducing emissions to 80 percent below 1990 levels by 2040 (EO S-3-05).

Executive Order N-79-20

On September 23, 2021, Governor Newsom announced that California will phase out the sale of new gasoline and diesel-powered cars to reduce GHG emissions. The Executive Order directs the State to require that, by 2035, all new cars and passenger trucks sold in California be zero-emission vehicles. This would aid in reducing CO₂ emissions, half of which are from the transportation sector.

Title 24 Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the California Code of Regulations [CCR]) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The currently applicable standards are the 2019 Standards, effective January 1, 2020 (CBSC 2018). The 2019 standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The ventilation measures improve indoor air quality, protecting homeowners from air pollution originating from outdoor and indoor sources (CEC 2021c). The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Both natural gas and electricity use produce GHG emissions. The goal of the standards is to reduce energy use in new homes by more than 50 percent. The 2019 standards require that there is sufficient on-site electricity generation to meet the annual electricity usage for low rise residential buildings. A 30 percent reduction in energy uses is anticipated for nonresidential uses. The requirement for low-rise residential

buildings to develop onsite electricity generation is consistent with the goal to develop renewable sources of energy.

The California Energy Commission (CEC) adopted the 2008 changes to the Building Energy Efficiency Standards in order to (1) “Provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy” and (2) “Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020”. Additionally, it has been California policy that all new residential buildings will be zero net energy (ZNE) by 2020 and new commercial buildings will be ZNE by 2030, as described in the 2008 California Public Utilities Commission(CPUC) long-term energy efficiency strategic plan. The 2019 Title 24 Energy Efficiency Standards establish building design and construction requirements that move closer to achieving California’s ZNE goals by requiring single-family residential developments to incorporate solar photovoltaic panels to meet their annual electricity requirements. The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Both natural gas use and electricity generation result in GHG emissions.

California Green Building Standards Code

The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen code, contains mandatory requirements and voluntary measures for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California) (CBSC 2019). The development of the CALGreen Code is intended to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the following construction practices: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental quality. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association (CAPCOA) is the association of Air Pollution Control Officers representing all 35 local air quality agencies throughout California. CAPCOA is not a regulatory body, but has been an active organization in providing guidance in addressing the CEQA significance of GHG emissions and climate change as well as other air quality issues. The August 2010 CAPCOA publication entitled Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures provides guidance on the quantification of project-level mitigation of GHGs associated with land use, transportation, energy use, and other related project areas. The guidance includes detailed procedures about the approaches to assessing and calculating the GHG emissions reductions associated with project design features and mitigation measures (CAPCOA 2010). This publication’s methods are used in the CalEEMod computer model that is used to calculate GHG emissions.

Local

South Coast Air Quality Management District

The County of Orange lies within the boundaries of the South Coast Air Quality Management District (SCAQMD). SCAQMD is the regulatory agency responsible for improving air quality for large areas of Los Angeles, Orange County, Riverside, and San Bernardino counties, including the Coachella Valley. The region is home to more than 17 million people—about half the population of the entire state of California. The mission of the SCAQMD is “To clean the air and protect the health of all residents in the South Coast Air District through practical and innovative strategies” (SCAQMD 2021).

Beginning in April 2008, the SCAQMD convened a Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold of 10,000 metric tons of CO₂ equivalent per year (MTCO_{2e}/year) for industrial projects where the SCAQMD is the lead agency. The policy objective for establishing this significance threshold is to capture projects that represent approximately 90 percent of GHG emissions from new sources and to avoid EIR-level analysis for relatively small impacts (SCAQMD 2008).

In September 2010, the Working Group proposed extending the 10,000 MTCO_{2e}/year screening threshold currently applicable to industrial projects where the SCAQMD is the lead agency, described above, to other lead agency industrial projects. For all other projects, SCAQMD staff proposed a multiple tier analysis to determine the appropriate threshold to be used. The draft proposal suggests the following tiers: Tier 1 is any applicable CEQA exemptions, Tier 2 is consistency with a GHG reduction plan, Tier 3 is a screening value or bright-line², Tier 4 is a performance-based standard, and Tier 5 is GHG mitigation offsets. According to the presentation given at the September 28, 2010, Working Group meeting, SCAQMD staff proposed a Tier 3 draft threshold of 3,000 MTCO_{2e} per year for all non-industrial land use types (SCAQMD 2010). For the Tier 4 draft threshold, SCAQMD staff presented a percent emission reduction target option but did not provide any specific recommendation for a numerical target; instead it referenced the San Joaquin Valley Air Pollution Control District approach. The percent reduction target is based on consistency with AB 32 as it was based on the same numeric reductions calculated in the Scoping Plan to reach 1990 levels by 2020. The second Tier 4 option is to utilize efficiency targets: 2020 targets are 4.8 MTCO_{2e} per year per service population (SP) for project-level thresholds where SP is project residents plus employees and 6.6 MTCO_{2e} per year per SP for a plan-level threshold (SCAQMD 2010). Targets for 2035 are 3.0 MTCO_{2e} per SP for project level thresholds and 4.1 MTCO_{2e} per year per SP for plan level threshold. The Working Group has not convened since the fall of 2010. It is noted that judicial decisions in recent years and the acceleration of State GHG thresholds have indicated that use of the Tier 4 method could be legally challenged. As of the publication of this EIR, the proposal to establish a GHG threshold for developments like the Project has not been considered or approved for use by the SCAQMD Board but the methodology has been used by lead agencies to evaluate GHG impacts under CEQA.

² A bright-line is a single value, applicable to all projects of one type, regardless of size. Thus, a bright-line is different from performance standards or efficiency standards that are generally based on a per-unit basis.

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As previously discussed, SB 375 specifically required Metropolitan Planning Organizations (MPOs), including SCAG, to incorporate an SCS in their RTPs that will achieve GHG emission reduction targets set by CARB. SCAG's current SCS is included in its 2020–2045 RTP/SCS Connect SoCal (SCAG 2020).³ The 2020 RTP/SCS combines the need for mobility with a “sustainable future” through a reduction in the emissions produced from transportation sources. The document was adopted by SCAG on September 3, 2020. The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035 relative to 2005.

4.7.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to greenhouse gas emissions if it would:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

In developing methods for GHG impact analysis, there have been suggestions of quantitative thresholds, often referred to as screening levels, which define an emissions level below which it may be presumed that climate change impacts would be less than significant. Neither the SCAQMD nor the County of Orange has adopted a significance threshold for the GHG emissions from non-industrial development projects. As discussed above under Section 4.7.2, Regulatory Setting (SCAQMD), the SCAQMD has suggested a numerical threshold for all land use types of 3,000 MTCO_{2e}/year. In the absence of adopted thresholds, the Tier 3 threshold (3,000 MTCO_{2e}) is used for this analysis (SCAQMD 2008). It is noted that the use of the Tier 3 threshold was selected for the Project because it is located in the South Coast Air Basin and these thresholds are based on the best available information and data at the time of preparation of this document. The development of project-level thresholds in accordance with CEQA is an ongoing effort at the State, regional, and County levels, and significance thresholds may differ for future projects based on new or additional data and information that may be available at that time for consideration.

4.7.4 IMPACT ANALYSIS

Methodology

Project emissions were calculated by using CalEEMod version 2020.4.0 (CAPCOA 2021). CalEEMod is a computer program accepted by the SCAQMD that can be used to estimate criteria pollutant and GHG emissions associated with land development projects in California. CalEEMod has separate databases for specific counties and air districts. The Orange County database was used for the Project. The model calculates emissions of CO₂, CH₄, and N₂O and combines these emissions to calculate CO_{2e}. For this analysis, the results are expressed in MTCO_{2e}/year. Please

³ The 2020-2045 RTP/SCS succeeds the 2016-2040 RTP/SCS.

see Section 4.2, Air Quality, of this EIR, for discussion of the CalEEMod inputs, adjustments, outputs, and other characteristics.

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

Less than Significant Impact.

Short-Term Construction Impacts

Construction activities would result in the temporary generation of GHGs through worker vehicles and off-road and on-road construction equipment. The details of phasing, selection of construction equipment, and other input parameters are described in Section 4.2, Air Quality.

Because construction activity impacts are short-term, they contribute a relatively small portion of the total lifetime GHG emissions of a project. In addition, GHG emission-reduction measures for construction equipment are relatively limited. Therefore, as proposed by the SCAQMD, construction emissions are amortized over a project lifetime (typically 30 years) so that GHG-reduction measures would address construction GHG emissions as part of the operational GHG-reduction strategies (SCAQMD 2008). That method is used in this analysis.

The results of the CalEEMod calculations for GHGs from construction of the Project are shown in Table 4.7-1, Estimated Construction Annual Greenhouse Gas Emissions for the Project. For the Project, construction would result in estimated GHG emissions of approximately 970 MTCO_{2e}, or annual GHG emissions of 32 MTCO_{2e} when amortized over 30 years.

**TABLE 4.7-1
ESTIMATED CONSTRUCTION ANNUAL
GREENHOUSE GAS EMISSIONS FOR THE PROJECT**

Year	Emissions (MTCO_{2e})
2022	147
2023	445
2024	378
Total	970
<i>Annual Construction Emissions Amortized over 30 Years</i>	32
MTCO _{2e} : metric tons of carbon dioxide equivalent Source: CalEEMod outputs can be found in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations.	

Because construction emissions are amortized over a 30-year project lifetime, the level of significance for construction emissions related to the Project is included in the section on “Long--Term Operational Impacts”, and a separate significance finding for construction emissions is not necessary.

Long-Term Operational Impacts

Operational GHG emissions for the Project were calculated in accordance with the methods described above and in Section 4.2, Air Quality, of this EIR. Mobile source input for trip generation was taken from the Traffic Analysis located in Appendix K, Traffic Analysis, of this EIR (Psomas 2021). Model inputs include project-specific data for water use and CalEEMod default data for electricity, natural gas, and solid waste. The results of the calculations of operational annual GHG emissions at planned Project buildout are shown in Table 4.7-2, Estimated Project Buildout Operational Annual Greenhouse Gas Emissions for the Project. CalEEMod data sheets are included in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations of this EIR. It should be noted that the emissions total in Table 4.7-2, Estimated Project Buildout Operational Annual Greenhouse Gas Emissions for the Project, includes all proposed operational emissions and does not include net reductions for existing emissions at the Project site. This results in a conservative estimation of emissions in Table 4.7-2, Estimated Project Buildout Operational Annual Greenhouse Gas Emissions for the Project. For example, as detailed further in Section 4.15, Transportation, of this EIR, the Project would generate 72 fewer trips per day than the existing racquet club uses, which include eight tennis courts, twelve pickleball courts, and a banquet/special events facility (Psomas 2021). The total operational GHG emissions at buildout for the Project is estimated at 401 MTCO_{2e} per year.

**TABLE 4.7-2
ESTIMATED PROJECT BUILDOUT OPERATIONAL
ANNUAL GREENHOUSE GAS EMISSIONS FOR THE PROJECT**

Source	Emissions MTCO _{2e} /year	Percent of Total
Area	10	2%
Energy	67	17%
Mobile	306	76%
Solid Waste	6	2%
Water	12	3%
Annual GHG Emissions	401	100%
MTCO _{2e} /year: metric tons of carbon dioxide equivalent per year; GHG: greenhouse gas(es).		
Note: Totals may not balance due to rounding		
Source: CalEEMod outputs can be found in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations.		

Table 4.7-3, Estimated Total Project Buildout Annual Greenhouse Gas Emissions, shows that the total estimated annual GHG emissions for the Project would be 434 MTCO_{2e}/year at buildout, which is the sum of the amortized construction emissions and the operational emissions.

**TABLE 4.7-3
ESTIMATED TOTAL PROJECT BUILDOUT
ANNUAL GREENHOUSE GAS EMISSIONS**

Source	Emissions MTCO _{2e} /year
Construction (amortized) (from Table 4.7-1)	32
Operations (from Table 4.7-2)	401
Total Annual GHG Emissions	434
SCAQMD-recommended project-level screening threshold	3,000
Exceed threshold?	No
MTCO _{2e} /year: metric tons of carbon dioxide equivalent per year; GHG: greenhouse gas; SCAQMD: South Coast Air Quality Management District. Note: Totals may not balance due to rounding. Source: CalEEMod outputs can be found in Appendix C, Air Quality and Greenhouse Gas Emissions Calculations.	

There are no established applicable quantitative federal, State, regional, or local CEQA significance criteria for GHG emissions for residential development projects in the SoCAB. The SCAQMD has proposed, but not adopted, a threshold of 3,000 MTCO_{2e} per year for non-industrial land use projects, as discussed above in Sections 4.7.2 and 4.7.3. As shown, the estimated GHG emissions from the Project would be substantially less than this suggested threshold. Therefore, the Project's GHG impact would be less than significant, and no mitigation measures are either required or recommended.

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

Less than Significant Impact.

The SCAQMD and the County of Orange have not adopted standards for the purpose of reducing GHG emissions. As discussed further above, under Section 4.7.2, Regulatory Setting, on June 1, 2005, the California Governor signed Executive Order S-3-05, which calls for a reduction in GHG emissions to year 2000 levels by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The principal overall State plan and policy adopted for the purpose of reducing GHG emissions is AB 32 (California Global Warming Solutions Act of 2006). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020, through its 2008 Scoping Plan. In 2016, the Legislature passed Senate Bill 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation Assembly Bill 197, which provides additional direction for developing the Scoping Plan.

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations. SB 375 requires a MPO to adopt a sustainable communities strategy or alternative planning strategy that will address land use allocation in their regional transportation plans. SB 375 is being addressed at the State and

regional levels, and the principles of SB 375 have been incorporated in SCAG's 2016-2040 RTP/SCS.

California EO B-30-15 set an "interim" statewide emission target to reduce GHG emissions to 40 percent below 1990 levels by 2030 and directed State agencies with jurisdiction over GHG emissions to implement measures pursuant to their statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels.

As discussed above the State policy and standards adopted for the purpose of reducing GHG emissions that are applicable to the Project are Executive Order S-3-05, AB 32, and SB 32. The quantitative goal of these regulations is to reduce GHG emissions to 1990 levels by 2020 to 80 percent below 1990 levels by 2050, and for SB 32, to 40% below 1990 levels by 2030. Statewide plans and regulations (such as GHG emissions standards for vehicles, the Low Carbon Fuel Standard, Cap-and-Trade, and renewable energy) are being implemented at the Statewide level, and compliance at a project level is not addressed. Therefore, the Project does not conflict with these plans and regulations. However, for purposes of this analysis, a consistency analysis is provided in Table 4.7-4, Scoping Plan Measures Consistency Analysis, for the applicable portions of the Scoping Plan Reduction Measures (CARB 2008). The Project is consistent with applicable strategies, while others are not applicable to the Project.

**TABLE 4.7-4
SCOPING PLAN MEASURES CONSISTENCY ANALYSIS**

Scoping Plan Reduction Measure	Project Consistency
<p>1. California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.</p>	<p>Not Applicable. The Cap and Trade program has begun. However, this Project is not targeted by the cap-and-trade system regulations, and that program is therefore not applicable to this Project.</p>
<p>2. California Light-Duty Vehicle Greenhouse Gas Standards Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.</p>	<p>Not applicable. This is a Statewide measure that cannot be implemented on a project level, but the standards for light-duty vehicles would be applicable for light-duty vehicles that access the Project site.</p>
<p>3. Energy Efficiency Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly-owned utilities).</p>	<p>Consistent. This measure is for the State to increase its energy efficiency standards. However, the Project would be consistent with this measure because it would be required as applicable to comply with 2019 Title 24 energy efficiency standards. The standards encourage demand responsible technologies, such as battery storage and heat pump water heaters to improve the buildings' thermal envelope through high-performance attics, walls, and windows.</p>

**TABLE 4.7-4
SCOPING PLAN MEASURES CONSISTENCY ANALYSIS**

Scoping Plan Reduction Measure	Project Consistency
4. Renewables Portfolio Standard Achieve 33 percent renewable energy mix statewide.	Not Applicable. This measure is for the State to increase its renewable use statewide. However, Southern California Edison (SCE), the electricity provider for the site, is required, through SB 2 (1x) to achieve a 33 percent renewable energy mix by 2020.
5. Low Carbon Fuel Standard Develop and adopt the Low Carbon Fuel Standard.	Not applicable. This is a statewide measure that cannot be implemented at the Project level.
6. Regional Transportation-Related Greenhouse Gas Targets Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	Not applicable. This is a statewide measure. The Project is not related to developing GHG emissions reduction targets for passenger vehicles.
7. Vehicle Efficiency Measures Implement light-duty vehicle efficiency measures.	Not applicable. This is a statewide measure that cannot be implemented on a Project level, but the standards for light-duty vehicles would be applicable for light-duty vehicles that access the Project site.
8. Goods Movement Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	Not Applicable. The Project does not propose any changes to goods movement activities, including maritime, intermodal facilities, or forms of transportation.
9. Million Solar Roofs Program Install 3,000 MW of solar-electric capacity under California's existing solar programs.	Consistent. This measure is for the State to increase solar throughout California, which is being completed by electricity providers and existing solar programs. The Project would comply with 2019 Title 24 standards as applicable for the Project.
10. Medium/Heavy-Duty Vehicles Adopt medium and heavy-duty vehicle efficiency measures.	Not applicable. This is a statewide measure that cannot be implemented on a Project level, but the standards for medium- and heavy-duty vehicles would be applicable for medium- and heavy-duty vehicles that access the Project site, such as for vendor trips during construction or for deliveries during operations of the Project.
11. Industrial Emissions Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	Not applicable. This measure would apply to the direct GHG emissions at major industrial facilities emitting more than 500,000 MTCO _{2e} per year. The Project is a residential land use development project that would generate substantially less than 3,000 MTCO _{2e} /yr (see Table 4.7-3, Estimated Total Project Buildout Annual Greenhouse Gas Emissions).
12. High Speed Rail Support implementation of a high speed rail system.	Not applicable. This is a Statewide measure that cannot be implemented by a Project applicant or lead agency. The Project would not prevent implementation of a high speed rail project.

**TABLE 4.7-4
SCOPING PLAN MEASURES CONSISTENCY ANALYSIS**

Scoping Plan Reduction Measure	Project Consistency
13. Green Building Strategy Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The Project would comply with the CEC as applicable through compliance with Title 24 building standards and would therefore incorporate applicable energy efficiency features designed to reduce energy consumption.
14. High Global Warming Potential Gases Adopt measures to reduce high global warming potential gases.	Consistent. This measure is applicable to the high global warming potential gases that would be used by sources with large equipment (such as in air conditioning). The Project would be required to comply with all CARB requirements for the Stationary Equipment Refrigerant Management Program.
15. Recycling and Waste Reduce methane emissions at landfills. Increase waste diversion, composting, and other beneficial uses of organic materials, and mandate commercial recycling. Move toward zero-waste.	Consistent. The Project would reduce waste with implementation of State-mandated recycling and reuse mandates for construction and operations activities, including compliance with the CALGreen code.
16. Sustainable Forests Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	Not applicable. The Project is not in a forested area, and therefore, preservation of on-site forest biomass is not applicable.
17. Water Continue efficiency programs and use cleaner energy sources to move and treat water.	Not applicable. This measure is for State and local agencies.
18. Agriculture In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	Not applicable. The Project site is not designated for agricultural use by the County of Orange General Plan. No grazing or other agricultural activities that could generate manure are proposed to occur at the Project site.
Source: CARB 2008	

The County of Orange has not yet developed a GHG reduction plan, such as a Climate Action Plan, and has not adopted regulations for the purpose of reducing GHGs applicable to this Project.

As shown in Table 4.7-4, Scoping Plan Measures Consistency Analysis, the Project is consistent with applicable strategies of the AB 32 Scoping Plan Reduction Measures, while others are not applicable to the Project. The Project would be built to meet the current applicable Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (California CCR, Title 24, Part 6) and the applicable California Green Building Standards (24 CCR 11). The Project would be developed in compliance with the requirements of these regulations.

The Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The impact would be less than significant, and no mitigation measures are either required or recommended.

4.7.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As discussed above under Threshold 4.7.4(a), the Project would generate greenhouse gases that would contribute to increased accumulation of GHG, that when combined with many sources in the atmosphere, including the cumulative projects included in Table 4-1, Cumulative Projects List, may result in global climate change. An individual project's GHG emissions typically would be very small in comparison to state or global GHG emissions. Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change and the nature of the issue, a project's GHG emissions and the resulting significance of potential impacts are assessed on a cumulative basis. The analysis in Section 4.7.4 above shows that the Project's GHG emissions would not exceed the SCAQMD's suggested quantitative threshold. As such, the Project would not contribute to a significant cumulative impact, and impacts would be less than significant.

4.7.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to GHG emissions were identified; therefore, no mitigation measures are required.

4.7.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to GHG would be less than significant, and no mitigation measures are required or recommended.

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4.8 HAZARDS AND HAZARDOUS MATERIALS

4.8.1 EXISTING CONDITIONS

Existing Land Uses

The Project site is currently developed with the Tustin Hills Racquet and Pickleball Club, which consists of a one-story clubhouse, tennis and pickleball courts, a swimming pool, and paved parking area. Adjoining properties are developed as single-family residences. During a site visit conducted by Geocon as part of the Phase I Environmental Site Assessment (refer to Appendix H), typical chemicals such as chlorine tablets, muriatic acid, paints, lubricants, and cleaners were observed in storage areas near the pool pump equipment and the hot water heater storage room of the racquetball club. No leaks or staining were observed (Geocon 2017b).

Historical Land Uses

Sanborn Fire Insurance Maps and historic aerial photography were reviewed by Geocon as part of the Phase I Environmental Site Assessment to determine historical land uses that occurred on and near the Project site. The historical topographic maps did not depict features that would suggest the presence of potential hazardous material contamination within the Project site. From as early as 1938 to around 1963 when it was developed as the racquet club, the Project site was used for agriculture use as a citrus grove. However, the site has since been plowed and tilled and the potential presence of pesticides in soil from past agricultural use is not expected to be of concern due the disturbance/grading of the soil, construction of buildings, and hardscape, likely diminishing pesticides (if present) (Geocon 2017b).

Hydrologic and Hydrogeologic Conditions

According to the Geotechnical Investigation, the Project site is elevated above the local alluviated groundwater basin and is underlain by sedimentary bedrock units that are not considered water-bearing (Geocon 2017). The Geotechnical Investigation found no available historic or current groundwater data for the Project site or the immediate vicinity. At the time of Geocon's field investigation, no evidence of near surface water, such as seeps, springs, or phreatophytes were observed at the Project site. Groundwater was not encountered in Geocon's field explorations, which drilled to a maximum depth of 33½ feet below the existing ground surface. Therefore, groundwater is neither expected to be encountered during construction or to impact foundation excavations or grading operations (Geocon 2017).

Records Search Results

An Environmental Data Resources, Inc. Radius Map Report (EDR) records search was commissioned for the Project, which is provided as Appendix I, EDR Radius Map Report (EDR 2017). EDR searched federal, State, and local databases for the Project site and surrounding area within one mile of the Project site. The Project site and nearby properties located within ¼ mile of the Project site were not listed in any of the databases searched by EDR. The Project site and nearby properties were also not identified in the GeoTracker and EnviroStor website databases,

which include sites with known contamination, assessments, and/or remediation occurring on them.

4.8.2 REGULATORY SETTING

Federal

Hazardous Materials Management

The Federal Resource Conservation and Recovery Act (RCRA) was enacted in 1976 and mandated a national waste management program. Under the RCRA regulations, as established by the United States Environmental Protection Agency (EPA), hazardous wastes must be tracked from the time of generation to the point of disposal. The RCRA program also sets standards for hazardous waste treatment, storage and disposal, which is intended to have hazardous wastes managed in a manner that minimizes the present and future threat to the environment and human health. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days, or treated or disposed at a facility, any treatment, storage or disposal unit must be permitted under RCRA. EPA has largely delegated responsibility for implementing the RCRA program in California to the Department of Toxic Substances Control (DTSC), an agency within Cal/EPA, which implements this program through the California Hazardous Waste Control Law (discussed below). While it is possible that future residential land uses at the Project site may generate or handle small quantities of hazardous wastes, the Project would not generate hazardous wastes in quantities that would subject such uses to RCRA requirements.

Occupational Safety and Health

Federal worker safety and health laws contain provisions with respect to hazardous materials management. The applicable federal law is the Occupational Safety and Health Act of 1970, as amended, which is implemented by the Occupational Safety and Health Administration (OSHA) (29 U.S.C., sec. 651-678). Federal OSHA requirements, set forth in 29 Code of Federal Regulations Section 1910, et. seq., are designed to promote worker safety, worker training, and worker right-to-know. A significant component of the federal OSHA regulations is the requirement that employers implement the OSHA Hazard Communication Standard (HCS), in order to provide information to employees about the existence and potential risks of exposures to hazardous substances in the workplace. As part of the HCS, employers must (1) obtain material safety data sheets (MSDSs) from chemical manufacturers which identify the types and handling requirements of hazardous materials used in given areas; (2) make the MSDSs available to their employees; (3) label chemical containers in the workplace; (4) develop and maintain a written hazard communication program; (5) and develop and implement programs to train employees about hazardous materials. Future uses at the Project site, including the pool area, would be subject to these OSHA requirements if the use involves chemical storage or handling.

Soil/Groundwater Contamination

The Comprehensive Environmental Response Compensation and Liability Act, 42 U.S.C. Section 9601, et. seq. (CERCLA) was enacted in 1980, and principally sets forth a framework for the remediation of hazardous waste disposal sites and other contaminated sites. CERCLA provides

that generators and transporters of hazardous substances, and owners and operators of facilities at which there has been a release of hazardous substances, are liable for the costs of the removal and remedial actions and can be ordered to perform the actions.

Hazardous Materials Transportation

The Hazardous Materials Transportation Act administered by the U.S. Department of Transportation governs the transport of hazardous materials, such as contaminated soil, asbestos, or lead-containing materials. The California Department of Transportation implements Title 49 of the Code of Federal Regulations (CFR), enacted pursuant to the Hazardous Materials Transportation Act. These laws regulate the handling and transport of hazardous waste materials on the Project site and off site as warranted.

State

Occupational Safety and Health

The U.S. Department of Labor has delegated authority to the State of California for administration of the Occupational Safety and Health Act, based on the federal agency's finding that the State's plan contains provisions at least as stringent as those required by federal OSHA. Cal/OSHA is very similar to the federal OSHA program, although, in addition to the provisions identified above, Cal/OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP). An IIPP is an employee safety program that is required to cover the full range of workplace hazards, including those associated with hazardous materials. Since the Project includes construction activities that have the potential to expose workers to soil contaminants, these are identified as potential workplace hazards. Compliance with Cal/OSHA regulations would be required for the Project, due to the potential hazards posed to construction workers. Applicable specifications prepared by OSHA related to earth resources consist of Section 29 CFR Part 1926 (Department of Labor 1989), which focuses on worker safety during excavation, shoring, and trenching.

4.8.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to hazards and hazardous materials if it would:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?
- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

4.8.4 IMPACT ANALYSIS

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

Less than Significant Impact. The Project would not involve the routine use, transport, handling, or storage of hazardous materials on-site. The proposed land uses are limited to residential, and no industrial or manufacturing land uses would be developed which routinely utilize hazardous materials. The Project would result in the on-site handling of materials that are common in similar residential developments, such as commercial cleansers, solvents and other janitorial or industrial use materials; paints; and landscape fertilizers/pesticides. While many such common materials are technically labeled “hazardous”, the presence of such materials is common in a residential environment and the quantities of these materials would be relatively limited, and would not represent a significant hazard to the public or the environment. The Project would not generate hazardous emissions, nor would it involve transport, use, or disposal of hazardous materials that would create a substantive hazard to the public or environment.

Given the age of the existing facilities, it is possible asbestos and lead-based paint could be present in the building materials and require specialized removal and disposal. As required by **SC HAZ-1** and **RR HAZ-1**, adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials as well as the safety procedures mandated by applicable federal, State, and local laws and regulations. The Project would result in less than significant impacts related to this threshold, and no mitigation measures are either required or recommended.

- b) *Would the Project 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. Project construction activities routinely involve the use and handling of limited volumes of commonly used hazardous materials, such as petroleum (fuel), paints, adhesives, and solvents. During construction, there is a limited risk of spills and/or accidental release of hazardous materials that are used for the operation and maintenance of construction equipment. The on-site temporary handling, storage, and usage of these materials would be subject to applicable local, State, and/or federal regulations in accordance with **SC HAZ-1** and **RR HAZ-1**.

As a part of the preparation of the Project's Phase I Environmental Site Assessment, a field survey of the Project site was conducted in 2017 by Geocon staff during which small quantities of hazardous materials, including paints and solvents as well as typical cleaning products and other general maintenance products, were observed in the clubhouse. Hazardous materials observed at the Project site appeared to be stored properly with no evidence of spills or leaks. There were no indications of hazardous waste generation or storage on-site. Additionally, no evidence of current or former aboveground storage tanks or underground storage tanks was observed on the Project site (Geocon 2017b).

Also as part of the Phase I Environmental Site Assessment, an EDR records search was conducted for the Project of governmental databases (EDR 2017). No sites or incidents were identified in the EDR search that would have resulted in contamination of the Project site or adjacent properties.

Geocon also reviewed historical aerial photographs provided by EDR for the years 1938, 1946, 1952, 1963, 1966, 1972, 1977, 1985, 1989, 1994, 2005, 2009, 2010, and 2012 for indications of past land uses that had the potential to have impacted the Project site through the use, storage or disposal of hazardous substances and/or petroleum (2017b). No conditions were observed on the aerial photographs that would suggest the potential presence of Recognized Environmental Conditions on the Project site or adjoining or nearby properties.

As discussed previously, it is possible that lead-based paints (LBPs), asbestos-containing materials (ACMs), and/or other common hazardous building materials may be encountered during demolition. Demolition of buildings and facilities containing ACM that have not been properly abated would cause ACM to become friable and airborne, thus causing a danger from inhalation. Demolition of buildings/structures and facilities containing LBPs, polychlorinated biphenyl (PCB)-containing lighting ballasts, and mercury-containing thermostats or fluorescent light tubes that have not been properly abated would cause a danger from inhalation, direct absorption through the skin, and ingestion of impacted soils. Although this would be a potentially significant impact, various federal and State regulations governing testing and abatement of ACM, LBPs, PCB-containing lighting ballasts, and/or mercury containing thermostats or fluorescent light tubes require that buildings/structures and facilities containing these materials must be properly tested and abated prior to demolition or renovation for reuse. **RR HAZ-2** requires testing and proper abatement of materials deemed hazardous prior to the issuance of a demolition permit.

Based on review of aerial photographs, the Phase I ESA Report identified the Project site was historically used for agricultural purposes, thus, there is a potential that agricultural-related chemicals such as pesticides, herbicides, and fertilizers, may have been used and stored on-site. Agricultural uses (i.e., citrus groves) were present on the Project site from at least 1938 until sometime prior to 1963. However, the Project site has been graded and developed with the current Tustin Hills Racquet and Pickleball Club, so any pesticides that would have historically been in the soil from past agricultural use would have previously been removed and is not expected to be a significant environmental concern at present. The site reconnaissance conducted on March 9, 2017, by Geocon Consultants as part of the Phase I ESA revealed no other evidence of Recognized Environmental Conditions on the Project site. For these reasons, the possible former use of agricultural chemicals is not expected to represent a significant environmental impact and does not require mitigation.

As required by **SC HAZ-1 and RR HAZ-1**, the Project would be required to comply with all applicable federal, State, and local laws and regulations pertaining to the transport, use, disposal, handling, and storage of hazardous waste during the construction and demolition phase to reduce the likelihood and severity of accidents during transit. Proper handling of the use and disposal of hazardous materials associated with residential uses would reduce the potential for exposure. Adherence to existing regulations would ensure compliance with regulations pertaining to testing and proper abatement of materials deemed hazardous prior to the issuance of a demolition permit as outlined in **RR HAZ-2**. Therefore, the Project would result in less than significant impacts related to this threshold, and no mitigation measures are either required or recommended.

c) Would the Project 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. There is one school located within one-quarter mile of the Project site. Ladera Elementary School is located 0.2 mile southeast of the Project site at 2515 Rawlings Way. However, the Project would not develop land uses that involve the use, storage, or transport of acutely hazardous materials that represent a significant hazard to the public or the environment. During Project operations, the Project would result in the routine on-site handling of materials that are common in similar residential developments, such as commercial cleansers, solvents, and other janitorial or industrial use- materials; paints; and landscape fertilizers/pesticides. As noted above, hazardous materials utilized during Project construction would be stored, transported, and used according to applicable regulations and ordinances. Therefore, the Project would result in less than significant impacts related to this threshold, and no mitigation measures are either required or recommended.

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

No Impact. Section 65962.5 requires the development of a hazardous waste and substances site list, also known as the Cortese List, which provides the location of known hazardous materials release sites. According to the EDR Radius Map prepared in 2017 and included as Appendix I (EDR 2017), as well as a search of the DTSC's ENVIROSTOR database that was conducted by Psomas in 2021, which consists of a search of selected government databases for potential environmental concerns in the vicinity of the Project site (e.g., "listed sites"), no Cortese List properties occur within the Project site (DTSC 2021). Therefore, no impact would result from implementation of the Project, and no mitigation measures are either required or recommended.

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

No Impact. The Project is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest public use airports are the John Wayne Airport located approximately 7.15 miles southwest of the Project site, the Fullerton Municipal Airport

located 14 miles northwest of the Project site, and the Corona Municipal Airport located 14.50 miles northeast of the Project site. The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area. Therefore, no impacts associated with public use airports would occur, and no mitigation measures are either required or recommended.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. A County-Wide Protection Plan (CWPP) was completed in 2017 by the Orange County Fire Authority (OCFA) and partner agencies. The CWPP includes an overview of the wildland fire risks and hazards within Orange County; recommendations on possible courses of action to reduce the impacts of wildfire in Orange County; and an action plan. The CWPP establishes no formal policies, evacuation routes, or other formal guidance related to individual developments. Therefore, the Project would not conflict with the CWPP (OCFA 2017).

Construction of the Project may require temporary lane closures on Pavillion Drive to install utility connections. Any closures would be temporary and would be implemented to maintain emergency and community access at all times. One entrance would be provided to access the Project site from Pavillion Drive, which would be used by future residents as an emergency access route to the surrounding roadway network. The Project would require review by the Orange County Fire Authority and other applicable County of Orange departments to ensure the Project design provides adequate emergency vehicle access in compliance with the requirements of the County of Orange Code of Ordinances. For these reasons, the Project would result in a less than significant impact related to this threshold, and no mitigation measures are either required or recommended.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. The Project site is surrounded by existing single-family residential development and is currently developed with the Tustin Hills Racquet and Pickleball Club. According to a review of the Fire Hazard Severity Zones Viewer maintained by CALFIRE, the Project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ) (CALFIRE 2021). The nearest designated VHFHSZ is located within the Peters Canyon Open Space Preserve, located approximately 0.75 miles northeast of the Project site (CALFIRE 2021). Therefore, the Project site and its immediate surroundings are not subject to wildland fires. In addition, the design of the dwelling units would conform to the Uniform Building and Fire Code, which would implement design standards and requirements to reduce potential fire risk. Therefore, Project would result in a less than significant impact related to exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, and no mitigation measures are either required or recommended.

4.8.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As described above, existing structures within the Project site that would be demolished may contain asbestos and lead based paint. Also, during construction a limited amount of commonly used hazardous materials such as petroleum (fuel), paints, adhesives, and solvents would be utilized. As required by **SC HAZ-1** and **RR HAZ-1**, adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials as well as the safety procedures mandated by applicable federal, State, and local laws and regulations. It is assumed that other cumulative projects would similarly be required to implement federal, State, and local laws to minimize their potential impacts, which would avoid cumulatively significant impacts related to these thresholds.

The Project is not covered by an adopted emergency response or evacuation plan. Therefore, the Project would not conflict with any such plans individually or cumulatively when considered with the cumulative projects.

The Project site is not located within a designated VHFHSZ; therefore, it is unlikely that the Project would not expose people or structures to wildland fires. Also, the Project as well as other cumulative projects would be built in conformance with Building and Fire Code, which would help to reduce potential fire risk.

Given these considerations, the Project would not result in cumulative impacts related to hazards and hazardous materials.

4.8.6 MITIGATION PROGRAM

Regulatory Requirements

RR HAZ-1 Transport of materials deemed as hazardous must comply with the requirements of Title 22, Division 4.5 of the California Code of Regulations, the U.S. Department of Transportation regulations in the Code of Federal Regulations (specifically, Title 49, Hazardous Materials Transportation Act and Title 40, Part 263, Subtitle C of Resource Conservation and Recovery Act), California Department of Transportation (Caltrans) standards, and Occupational Safety and Health Administration (OSHA) standards.

RR HAZ-2 Prior to issuance of a demolition permit for any buildings or facilities, building materials shall be assessed by a qualified Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 for the presence of lead-based paints (LBPs), asbestos-containing materials (ACM), and other common hazardous building materials (e.g., polychlorinated biphenyl [PCB]-containing lighting ballasts and mercury-containing light tubes and switches). If determined to be present, the Applicant shall prepare an abatement plan for their removal and safe transport in compliance with State and federal regulations, including Occupational Safety and Health Administration (OSHA) regulations in the Code of Federal Regulations (specifically Title 29, Part 1926) and South Coast Air Quality Management District (SCAQMD) Rule 1403. The abatement plan shall meet the satisfaction of the Manager, Orange County Health Care Agency (OCHCA)/Hazardous Materials Program.

County Standard Conditions of Approval

SC HAZ-1: County Standard Condition of Approval FD03:

Applicant/operator shall store, manifest, transport, and dispose of all on-site generated waste that meets hazardous waste criteria in accordance with California Code of Regulations Title 22 and in a manner to the satisfaction of the Manager, HCA/Hazardous Materials Program. Applicant shall keep storage, transportation, and disposal records on site and open for inspection to any government agency upon request.

Mitigation Measures

No significant impacts pertaining to hazards and hazardous materials were identified; therefore, no mitigation measures are required.

4.8.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to hazards and hazardous materials would be less than significant, and no mitigation measures are either required or recommended..

4.8.8 REFERENCES

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4.9 HYDROLOGY AND WATER QUALITY

4.9.1 EXISTING CONDITIONS

The Project site is graded and developed as a tennis club. The surface of the Project site slopes generally down to the southeast. The lowest point on the Project site is near the most southerly corner where storm water runoff leaves the Project site in a concrete drainage ditch. The Project site is currently terraced for the construction of the tennis and pickleball courts and clubhouse. The average slope of the Project site is approximately 7.5 percent, dropping 40 feet in 540 feet of length.

The storm runoff from the Project site currently drains by surface flows along a concrete drainage ditch southerly approximately 200 feet to a City of Tustin storm drain system, eventually draining to the San Diego Creek and the Upper Newport Bay, 8.5 miles southwest of the Project site (Hamers & Associates 2020). Upper Newport Bay has 303(d) list impairments¹ for Sediment, Nutrients, Heavy Metals, Pesticides, Pathogens, Toxicity, and Other Organics. There are no applicable Total Maximum Daily Loads (TMDLs)² for Upper Newport Bay.

According to the Geotechnical Investigation, the Project site is elevated above the local alluviated groundwater basin and is underlain by sedimentary bedrock units that are not considered water-bearing (Geocon 2017). The Geotechnical Investigation found no available historic or current groundwater data for the Project site or the immediate vicinity. At the time of Geocon's field investigation, no evidence of near surface water, such as seeps, springs, or phreatophytes were observed at the Project site. Groundwater was not encountered in Geocon's field explorations, which drilled to a maximum depth of 33½ feet below the existing ground surface. Therefore, groundwater is neither expected to be encountered during construction or to impact foundation excavations or grading operations (Geocon 2017).

The Project site is not located within a coastal area or near a body of water. Therefore, tsunamis and seiches are not considered significant hazards for the Project.

The Project site is located within Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 06059C0168J. As shown on the FIRM, the Project site is located within Zone X, which is defined as "Areas determined to be outside the 0.2% annual chance floodplain" (FEMA 2021).

¹ A 303(d) list impairment refers to a State's list of impaired and threatened waters (e.g. stream/river segments, lakes). States are required to submit their list for U.S. Environmental Protection Agency (USEPA) approval every two years. For each water on the list, the State identifies the pollutant causing the impairment, when known.

² A TMDL is the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant. A TMDL determines a pollutant reduction target and allocates load reductions necessary to the source(s) of the pollutant.

4.9.2 REGULATORY SETTING

Federal

Clean Water Act

In 1972, the Federal Water Pollution Control Act (Clean Water Act – [CWA]) was amended to require National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants to “waters of the U.S.” from any point source. Final regulations regarding storm water discharges were issued on November 16, 1990, and require that municipal separate storm sewer system (MS4) discharges and industrial (including construction) storm water discharges to surface waters be regulated by an NPDES permit. MS4s are a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) and are owned or operated by a public body that has jurisdiction over the disposal of sewage, industrial wastes, storm water, or other wastes. The MS4s are designated or used for collecting or conveying storm water only (i.e., not wastewater or combined sewage).

Clean Water Act Section 303(d) and Total Maximum Daily Loads

Water bodies not meeting water quality standards are deemed “impaired” and, under CWA Section 303(d), are placed on a list of impaired waters for which a TMDL must be developed for the impairing pollutant(s). For point sources, including storm water, the load allocation is referred to as a “Wasteload Allocation”, whereas for non-point sources, the allocation is referred to simply as a “Load Allocation”. Once established, the TMDL allocates the loads (or concentrations) among current and future pollutant sources to the water body.

The CWA requires that the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) conduct a Water Quality Assessment that addresses the condition of its surface waters (required in Section 305[b] of the CWA) and that provides a list of impaired waters (required in CWA Section 303[d]). The Water Quality Assessment is then submitted to the USEPA for review and approval. The Water Quality Assessment integrates the requirements of Sections 305(b) and 303(d) of the CWA and is referred to as the “Integrated Report”. The 2018 California Integrated Report and updated 303(d) list was approved by the U.S. EPA on June 9, 2021 (SWRCB 2021).

National Flood Insurance Program

FEMA administers the National Flood Insurance Program (NFIP), which provides flood insurance, floodplain management, and flood hazard mapping. Communities subject to flood hazards voluntarily participate in the NFIP by adopting and enforcing floodplain management ordinances that would reduce the potential for flood damage. In turn, the NFIP offers federally funded flood insurance to homeowners, renters, and business owners in participating communities. Under this program, FEMA produces FIRMs that identify properties and buildings in flood insurance risk areas. Flood hazards related to storm events are generally described in terms of the 100- or 500-year floods. These are floods that, respectively, have a 1.0 percent and 0.2 percent chance of occurring every year. The Project site is located within FEMA FIRM Panel

06059C0168J. As shown on the FIRM, the Project site is located within Zone X, which is defined as “Areas determined to be outside the 0.2% annual chance floodplain” (FEMA 2021).

State/Regional

California Porter-Cologne Act

California’s Porter-Cologne Water Quality Control Act of 1970 (“Porter-Cologne Act”) grants the SWRCB and the RWQCBs the power to protect surface water and groundwater quality and is the primary vehicle for implementing California’s responsibilities under the Clean Water Act. In accordance with the Porter-Cologne Act, the SWRCB and RWQCBs have adopted plans and policies to regulate discharges of wastes to surface waters and groundwater; to regulate waste disposal sites; and to require the cleanup of discharges of hazardous materials and other pollutants.

Each RWQCB must formulate and adopt a Water Quality Control Plan (“Basin Plan”) for its region. The Basin Plan must conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State Water Policy. The Basin Plan establishes beneficial uses for surface and groundwater in the region and sets forth narrative and numeric water quality standards to protect those beneficial uses. The RWQCBs are also authorized to enforce discharge limitations; to take actions to prevent violations of these limitations from occurring; and to conduct investigations to determine the status of the quality of any of the waters of the State. Civil and criminal penalties are imposed on persons who violate the requirements of the Porter-Cologne Act or any SWRCB/RWQCB order.

California Toxics Rule

The Clean Water Act also requires States to adopt water quality standards for receiving water bodies and to have those standards approved by the USEPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing), along with the water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations, levels of constituents, or narrative statements that represent the quality of water that supports a particular use. Because the State of California was unable to develop these standards for priority toxic pollutants, the USEPA promulgated the California Toxics Rule in 1992 (40 Code of Federal Regulations 131.38), which fills this gap.

National Pollutant Discharge Elimination System Program

As discussed above, the NPDES permit program is administered by the nine RWQCBs in the State. These boards have the mandate to develop and enforce water quality objectives and implementation plans within their regions. If discharges from proposed industrial, municipal, and other facilities go directly to surface waters, project applicants must obtain permits from the applicable RWQCB. An individual NPDES permit is specifically tailored to a facility. A general NPDES permit covers multiple facilities in a specific activity category, such as construction activities. The Project site is located within the jurisdiction of the Santa Ana RWQCB.

Orange County Municipal Separate Storm Sewer System (MS4) Permit

In 2002, the Santa Ana RWQCB issued NPDES Permit Order No. R8-2002-0010 for discharges of urban runoff from public storm drains in northern Orange County (Orange County MS4 Permit). The Permittees are the County of Orange; the Orange County Flood Control District (OCFCD); and the northern Orange County cities (collectively “the CoPermittees”). To implement the requirements of the Orange County MS4 permit, the CoPermittees developed the 2003 Drainage Area Management Plan (DAMP). On May 22, 2009, the Santa Ana RWQCB adopted the Waste Discharge Requirements for the County of Orange, Orange County Flood Control District, and the Incorporated cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff, Order No. R8-2009-0030, NPDES No. CAS618030. The 2009 Orange County MS4 permit included several provisions for new development and significant redevelopment projects, including a requirement to revise the Model Water Quality Management Plan (Model WQMP) and to continue to implement the best management practices (BMPs) listed in the 2007 DAMP, update or modify the DAMP. The Orange County MS4 Permit was subsequently reopened and revised for the limited purpose of extending deadlines for the preparation of the Model WQMP and related documents (Permit Order No. R8-2010-0062). Pursuant to these requirements, the Co-Permittees prepared and submitted a revised Model WQMP, Technical Guidance Document (TGD), and supporting documents (collectively referred to as the “revised documents”), which were approved by the Santa Ana RWQCB on May 19, 2011, and became effective on August 17, 2011. The revised documents include guidance for the preparation of conceptual or preliminary WQMPs to more effectively ensure that water quality protection, including low impact development (LID) principles, is considered in the earliest phases of a project. The revised documents incorporate the latest information on BMPs and provide additional clarification regarding their effectiveness and applicability. The Santa Ana RWQCB is in the process of updating the Orange County MS4 Permit, which began in 2014 but the draft Orange County MS4 Permit is yet to be finalized and adopted. The Project would be subject to NPDES regulations in effect at the time of issuance of building permits for construction of either development.

Construction General Permit

Pursuant to Section 402(p) of the CWA, which requires regulations for permitting certain storm water discharges, the SWRCB issued a Statewide general NPDES Permit for storm water discharges from construction sites. The SWRCB NPDES General Permit for Stormwater Discharges Associated with Construction Activity is referred to as the “Construction General Permit”. Under this Construction General Permit, discharges of storm water from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or to be covered by the Construction General Permit. Coverage under the Construction General Permit is accomplished by completing a construction site risk assessment to determine appropriate coverage level and by preparing a Storm Water Pollution Prevention Plan (SWPPP), including site maps, a Construction Site Monitoring Program, and sediment basin design calculations. For projects located outside a Phase I or Phase II permit area, the Construction General Permit requires a post-construction water balance calculation for hydromodification controls and the completion of a Notice of Intent. All these documents must be electronically submitted to the SWRCB for Construction General Permit coverage. The primary objective of the SWPPP is to ensure that the responsible party properly constructs, implements, and maintains BMPs to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site. The SWPPP

also outlines the monitoring and sampling program required on the construction site to verify compliance with the discharge Numeric Action Levels (NALs) set by the Construction General Permit. The Construction General Permit also includes post-construction requirements for projects to match pre-project runoff volume through the use of non-structural or structural measures. For sites larger than two acres, a project should also maintain the site's pre-project runoff rate.

General Waste Discharge Requirements

The Santa Ana RWQCB has the authority to issue individual Waste Discharge Requirements (WDRs) for individual discharges or facilities and general WDRs for similar types of discharges. The WDRs give the facility or discharger permission for specific discharges subject to discharge prohibitions, effluent limitations, discharge specifications, and other conditions and provisions necessary to meet State and federal laws. The Santa Ana RWQCB has adopted Order No. R8-2015-0004 (NPDES No. CAG998001), which includes updated General WDRs for discharges to surface water that pose an insignificant (de minimis) threat to water quality. This Order allows specific wastewater discharges, including construction dewatering wastes, to be disposed into surface waters, subject to the regulations in the Order. Specifically, if construction dewatering or discharges from other specific activities (e.g., dewatering from subterranean seepage, potable water system maintenance discharges, fire hydrant flushing, etc.) are required, the Project must comply with the requirements of Order. The General WDRs include provisions mandating notification, testing, and reporting of dewatering and testing-related discharges, and contain numeric and performance-based effluent limits depending upon the type of discharge. The General WDRs authorize discharges from construction-related activities as long as all conditions of the Order are fulfilled. If the proposed discharge is not eligible for coverage under this Order, an individual NPDES permit would be required.

Trash Provisions

In compliance with Section 13383 of the Water Code, the SWRCB adopted Statewide Trash Provisions to address the impacts trash has on the beneficial uses of surface waters. The Trash Provisions establish a Statewide water quality objective for trash and a prohibition of trash discharge, or deposition where it may be discharged, to surface waters of the State. For Phase I Co-permittees that have regulatory authority over Priority Land Uses, the Trash Provisions require implementation of the prohibition through requirements incorporated into Orange County Phase I MS4 Permits and/or through monitoring and reporting orders, by June 2, 2017. Since the Trash Provisions have not yet been implemented through the Orange County MS4 Permit, the Santa Ana RWQCB is implementing the initial steps of the Trash Provisions through the 13383 Orders that were issued on June 2, 2017.

Santa Ana River Basin Plan

The Water Quality Control Plan for the Santa Ana River Basin (Santa Ana River Basin Plan) identifies the beneficial uses and water quality objectives for the groundwater and surface waters in the Santa Ana River watershed. Runoff from the site is discharged into a City of Tustin storm drain that drains to San Diego Creek, which flows to the Upper Newport Bay and ultimately to the Pacific Ocean. Beneficial uses are the ways that water can be used for the benefit of people and/or wildlife. Reach 2 of San Diego Creek is identified in the Basin Plan as having the following

existing or potential beneficial uses and intermittent beneficial uses: groundwater recharge (GWR); water contact recreation (REC1); non-contact recreation (REC2); warm freshwater habitat (WARM); wildlife habitat (WILD); and rare, threatened, and endangered species (RARE).

The Upper Newport Bay, which is the ultimate receiving water, is classified as an impaired water body and has been placed on the 2016 Clean Water Act (CWA) Section 303(d) list of impaired waters because of excessive concentrations of pollutants (“pollutants of concern”), including chlordane, copper, dichlorodiphenyltrichloroethane (DDT), indicator bacteria, Malathion, nutrients, polychlorinated biphenyls (PCBs), sedimentation/ siltation and toxicity.

When a particular receiving water body is being compromised by degraded water quality, Section 303(d) of the CWA requires identification and listing of that water body as “impaired”. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body. Table 4.9-1, Summary of 303(D) List for the Project Receiving Water Bodies, shows the 303(d) listing and applicable TMDL for the Project site’s receiving waters.

**TABLE 4.9-1
SUMMARY OF 303(D) LIST FOR THE PROJECT RECEIVING WATER BODIES**

Water Body	Pollutant	TMDL Requirement Status (Date)	Potential Pollutant Sources (Where Identified)
Newport Bay, Upper	Chlordane	5B (2013)	See TMDL Documentation*
	Copper	5A (2007)	Marinas and Recreational Boating
	DDT (Dichlorodiphenyltrichloroethane)	5B (2013)	See TMDL Documentation*
	Indicator Bacteria	5B (2000)	N/A
	Malathion	5A (2027)	N/A
	Nutrients	5B (1999)	N/A
	PCBs (Polychlorinated biphenyls)	5B (2013)	See TMDL Documentation*
	Sedimentation/Siltation	5B (1999)	Agriculture
	Sedimentation/Siltation	5B (1999)	Channel Erosion
	Sedimentation/Siltation	5B (1999)	Construction/Land Development
	Sedimentation/Siltation	5B (1999)	Erosion/Siltation
Toxicity	5A (2027)	N/A	

TMDL: Total Maximum Daily Load; 5A: TMDL required (expected completion date reported in 303[d] list in parentheses); N/A: not applicable; 5B: pollutant being addressed by U.S. Environmental Protection Agency (i.e., an approved TMDL).
 *For potential pollutant sources for chlordane, DDT, and PCBs, please refer to the technical support documents provided at: https://www.waterboards.ca.gov/rwqcb8/water_issues/programs/tmdl/tmdl_toxics.html,
 Source: SWRCB 2021.

County of Orange

Drainage Area Management Plan

To implement the requirements of the Orange County MS4 Permit, the Co-Permittees developed the 2003 DAMP to serve as the foundation of the model programs, local implementation plans, and watershed implementation plans. The DAMP provides a framework and a process for following the Orange County MS4 Permit requirements and incorporates watershed protection/storm water quality management principles into the Co-Permittees' General Plan process, the environmental review process, and the development permit approval process. Among others, the DAMP discusses the activities, practices and programs being implemented by the various municipalities for reducing pollutant discharges into the MS4s. It includes a public education program to encourage the prevention of storm water pollution at the source. The DAMP also defines requirements for construction sites and for project-specific planning, selection, and design of BMPs in new development or significant redevelopment projects. It also includes the water quality monitoring programs being implemented in the County. A draft 2007 DAMP was developed in response to the updated Orange County MS4 Permit. The DAMP addresses the same storm water quality programs related to municipal activities; public education; requirements for new development and significant redevelopment projects (including the Model WQMP), construction sites, and existing development; discharge prohibitions; and the water quality monitoring program. The draft 2007 DAMP has not been adopted to date.

Model Water Quality Management Plan and Technical Guidance Document

The Orange County MS4 permit requires that the Model WQMP be updated to incorporate new LID provisions and to address the impact of urbanization on downstream hydrology. The revised Model WQMP requires that new development and significant redevelopment projects that qualify as Priority Projects infiltrate, harvest and re-use, evapotranspire, or biotreat the 85th percentile storm event ("design capture volume"). Biotreatment may be considered only if infiltration, harvesting and reuse, and evapotranspiration cannot be feasibly implemented at a project site. Any portion of the design capture volume that is not infiltrated, harvested and reused, evapotranspired, or biotreated on the project site by LID BMPs must be treated prior to discharge per specific conditions of the permit. The Orange County MS4 permit allows for alternatives and in-lieu programs for LID BMPs. If LID BMPs cannot be implemented to address the full design capture volume, in-lieu programs must be considered. Waivers may be granted only where the cost of BMPs "greatly outweighs" benefits. Priority Projects that must develop and implement a conceptual or preliminary WQMP and/or a final project WQMP that includes LID BMPs include the following: 1. New development projects that create 10,000 square feet or more of impervious surface; 2. Automotive repair shops; 3. Restaurants where the land area of development is 5,000 square feet or more including parking area; 4. Hillside development greater than 5,000 square feet; 5. Impervious surface of 2,500 square feet or more located within, directly adjacent to (within 200 feet), or discharging directly into receiving waters within Environmentally Sensitive Areas; 6. Parking lots 5,000 square feet or more including associated drive aisle, and exposed to storm water; 7. Streets, roads, highways, and freeways of 5,000 square feet or more; 8. All significant redevelopment projects, defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site; and 9. Retail Gasoline Outlets of 5,000 square feet or more. The TGD serves as a technical companion to the Model WQMP, providing guidance on how to prepare the

Conceptual/Preliminary and final project WQMP. The Project is a considered priority project under the 2011 Model WQMP; therefore, a Preliminary Priority Project Water Quality Management Plan (Preliminary WQMP), prepared by Robin B. Hamers & Associates, Inc. dated April 15, 2020 (Appendix J). was prepared for the Project (Hamers & Associates 2020).

Orange County Flood Control Act

The Orange County Flood Control Act sets the County regulations on the control of the flood and storm waters of the OCFCD, and the flood and storm waters of streams that have their source outside of the OCFCD, but which flow into the OCFCD. The Act also seeks to conserve waters for beneficial use and protect from damage from those flood or storm waters, the harbors, waterways, public highways, and property in the OCFCD. Dischargers of pollutants, waste, or other materials into OCFCD facilities requires a permit from the OCFCD.

Water Quality Ordinance

Title 4, Division 13 and Title 9 of the County of Orange Code of Ordinances is the County Water Quality Ordinance, which prohibits connection of a drainage system, pipeline, conduit, inlet, or outlet to the storm water drainage system, unless otherwise authorized by the agency with jurisdiction over the system, at the location at which the connection is made. It also outlines regulations on illicit connections and prohibited discharges that may result in the discharge of any pollutant to the storm water drainage system.

4.9.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to hydrology and water quality if it would:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - (i) result in substantial erosion or siltation on or off site;
 - (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - (iv) impede or redirect flood flows.

- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.9.4 IMPACT ANALYSIS

- a) *Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less than Significant Impact. This section discusses the Project's potential construction- and operational-related water quality impacts.

Construction-Related Water Quality Impacts

The Project would result in short-term construction impacts to surface water quality from demolition, grading, and other construction-related activities. Storm water runoff from the Project site during construction could contain soils and sediments from these activities. Also, spills or leaks from heavy equipment and machinery, construction staging areas, and/or building sites can also enter runoff and typically include petroleum products such as fuel, oil and grease, and heavy metals.

The SWRCB has issued the Statewide NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No 2012-0006-DWQ, NPDES No. CAS000002, adopted by the SWRCB on July 17, 2012). Under this Construction General Permit, individual NPDES permits or Construction General Permit coverage must be obtained for discharges of storm water from construction sites with a disturbed area of one or more acres. Since the development area within the Project site is 5.88-acre, coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity is required. To obtain coverage, the Developer must retain the services of a certified Qualified SWPPP Developer to prepare a SWPPP for the Project. The Developer, or the contractor if specifically delegated, would electronically submit permit registration documents prior to beginning construction activities in the Storm Water Multi-Application Report Tracking System, which would consist of a Notice of Initiation, Risk Assessment, Post-Construction Calculations, a site map, the SWPPP, a signed certification statement, and the first annual fee. Project construction would also adhere to the South Coast Air Quality Management District's Rule 402 (Nuisance) and Rule 403 (Fugitive Dust) to avoid and minimize dust from leaving the site.

The requirement to prepare a SWPPP is also reflected in the County Standard Condition WQ04, which is incorporated herein as **SC HWQ-1**. Additionally, County Standard Condition WQ05 requires the preparation of an Erosion and Sediment Control Plan (ESCP) (**SC HWQ-2**) to demonstrate compliance with the County's NPDES Implementation Program. Adherence to applicable regulatory requirements would ensure that Project short-term impacts to surface water quality during construction would be less than significant, and no mitigation measures are either required or recommended.

Groundwater is neither expected to be encountered during construction or to impact foundation excavations or grading operations (Geocon 2017). Therefore, it is unlikely that the Project would degrade groundwater quality, and a less than significant impact would occur.

Operational Water Quality Impacts

According to the Preliminary WQMP that was prepared for the Project consistent with County Standard Condition WQ01 (**SC HWQ-3**), general pollutants that may result from Project operations, which are also known as project priority pollutants of concern, include suspended solids/sediment, nutrients, pathogens (bacteria/virus), pesticides, oil and grease, and trash and debris (Hamers & Associates 2020). As detailed in the Project Description, the Project proposes a storm water collection system that would collect storm water through a system of french drains, driveways, and curbs with gutters. Each residential unit would include a minimum of 10 linear feet of french drain per 1,000 square feet of impervious surface area. Flows from the proposed streets would be conveyed via curbs and gutters downslope to the south where they would be conveyed underground via 18-inch drop inlet catch basins. An underground infiltration trench has been incorporated into the drainage system to treat the runoff. After treatment, storm water would be conveyed via a private storm drain to the southerly corner of the Project site from where the runoff would flow, as it does in existing conditions, off-site along a concrete ditch southerly approximately 200 feet to a City of Tustin storm drain. The drainage improvements and treatment BMPs would be maintained by the homeowner's association (a.k.a. HOA). These drainage improvements have been incorporated into the Project design based on the recommendations of the Preliminary WQMP to minimize impacts related to storm water quality generated from Project implementation. Consistent with County Standard Condition of Approval WQ02 (**SC HWQ-4**) and WQ03 (**SC HWQ-5**), the Applicant will be required to demonstrate that BMPs have been designed and implemented as specified in the WQMP.

Portions of San Diego Creek downstream of the Project site are not hardened and are considered to be susceptible to erosion (Hamers & Associates 2020). The Project would not contribute to downstream erosion or sedimentation because post development storm water runoff volumes would be less than pre-project conditions by approximately 11 percent.

Therefore, construction and operation of these storm water BMPs would adequately convey and treat storm water runoff and a less than significant impact would occur, and no mitigation measures are either required or recommended.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. The Project would not involve direct or indirect withdrawals of groundwater. Domestic water service would be provided by the City of Tustin. Furthermore, the Project would increase the amount of pervious surface within the Project site by 7.7 percent and would include other best management practices including an infiltration trench that would increase the groundwater recharge that occurs within the Project site (Hamers & Associates 2020). The City of Tustin obtains groundwater from the Orange County Groundwater Basin, which is managed by Orange County Water District (OCWD). The OCWD is a special district formed to manage the Orange County Groundwater Basin. OCWD adopted its first Groundwater

Management Plan in 1989. The last update was completed in 2015. The Groundwater Management Plan sets forth basin management goals and objectives and describes how the basin is managed. The Project would not result in any conflicts with goals and objectives of this plan, nor would it conflict with any of the recharge or groundwater replenishment activities that the OCWD is undertaking.

In 2014, the California Sustainable Groundwater Management Act (SGMA) was passed. The law provides authority for agencies to develop and implement groundwater sustainability plans or alternative plans that demonstrate the basin is being managed sustainably. On January 1, 2017, the Orange County Water District, City of La Habra, and Irvine Ranch Water District submitted the Basin 8-1 Alternative to the California Department of Water Resources. The Project site is located in the "OCWD Management Area" portion of the Orange County Groundwater Basin, as identified in the Basin 8-1 Alternative. Because the Project would be served by the City and would not directly withdraw from the groundwater basin and all groundwater recharge would be subject to underground infiltration as detailed in the Response to threshold a, previously, the Project would not conflict with the Sustainability Goals for the OCWD Management Area, which include: preventing significant and unreasonable lowering of groundwater levels; reduction in storage; water quality degradation; seawater intrusion; inelastic land subsidence; and adverse impacts on hydrologically connected surface water. None of these goals directly apply to the Project. Therefore, the Project would not substantially decrease groundwater supplies or otherwise substantially interfere with groundwater recharge. A less than significant impact would occur, and no mitigation measures are either required or recommended.

c) Would the Project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;

Less Than Significant Impact. The Project has the potential to result in erosion and siltation during construction. Development and implementation of a SWPPP for the Project would ensure potential effects related to erosion and siltation are reduced to less than significant levels during construction. Also, a system of storm water BMPs have been incorporated in the Project's design, which would reduce potential for erosion and siltation during Project operations. Given these considerations, less than significant impacts would result from the Project, and no mitigation measures are either required or recommended.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less Than Significant Impact. The Project would result in a 7.7 percent reduction in impervious surfaces within the Project site and would reduce peak storm water runoff from the Project site by over 11 percent (Hamers & Associates 2020). Therefore, since the rate and amount of surface runoff would be reduced, flooding on- and off-site would be avoided. The Project would result in less than significant impacts relative to this threshold, and no mitigation measures are either required or recommended.

- iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***

Less Than Significant Impact. Storm water runoff from the Project site currently drains in a southerly direction by surface flows along a concrete drainage ditch and flows approximately 200 feet to a City of Tustin storm drain system, eventually draining to the San Diego Creek and the Upper Newport Bay located approximately 8.5 miles southwest of the Project site (Hamers & Associates 2020). The Project would result in a 7.7 percent reduction in impervious surfaces within the Project site and would reduce peak storm water runoff from the Project site by over 11 percent (Hamers & Associates 2020). Therefore, the Project would result in less than significant impacts relative to this threshold, and no mitigation measures are either required or recommended.

- iv) impede or redirect flood flows?***

Less Than Significant Impact. The Project site is located within FEMA Flood Insurance Rate Map (FIRM) Panel 06059C0168J. As shown on the FIRM, the Project site is located within Zone X, which is defined as “Areas determined to be outside the 0.2% annual chance floodplain” (FEMA 2021). Furthermore, there are no creeks, drainages, or lakes near the Project site which have potential to convey flow through the Project site. Therefore, the Project has no potential to impede or redirect flood flows. Impacts related to this threshold would be less than significant, and no mitigation measures are either required or recommended.

- d) Would the Project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?***

No Impact. The Project site is located within FEMA FIRM Panel 06059C0168J. As shown on the FIRM, the Project site is located within Zone X, which is defined as “Areas determined to be outside the 0.2% annual chance floodplain” (FEMA 2021). The Project site is not near the ocean or other water body with the potential to be at risk of seismically -induced tidal or seiche phenomena. Furthermore, the Project would not utilize, store, or otherwise contain pollutants that would be at risk of release if inundated. Therefore, hazards related to the potential release of pollutants due to inundation caused by a flood, tsunami, and/or seiche are considered to be negligible. No impact would result from the Project related to this threshold, and no mitigation measures are either required or recommended.

- e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

Less Than Significant Impact. The RWQCB prepares and maintains the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan). The Basin Plan sets water quality standards in the Santa Ana River Basin by establishing beneficial uses for specific water bodies and designating numerical and narrative water quality objectives. The Basin Plan sets water quality objectives for the Project Site and its surrounding areas. Water quality thresholds identified in the Basin Plan are intended to reduce pollutant discharge and ensure that water bodies are of sufficient quality to meet their designated beneficial uses. The Project would not conflict with the water quality standards outlined in the Basin Plan or worsen water quality conditions in any 303(d)-listed water body. As discussed above in response to threshold 4.9.4 (a), pollutant

discharge during construction would be avoided through compliance with the Construction General Permit including the preparation and implementation of a SWPPP. Once the Project is constructed, the Project would consist of a residential development. Pollutants generated during Project operations would be treated using BMPs including an underground infiltration trench. Therefore, the Project would not be a source of pollutants for downstream water bodies and the Project would thereby not conflict with the Basin Plan.

As discussed previously in response to threshold 4.9.4 (b), OCWD and partner agencies submitted an alternative groundwater plan for the Orange County Groundwater Basin, which underlies the Project site. The Project would not conflict with the Sustainability Goals for the OCWD Management Area, which include preventing significant and unreasonable: lowering of groundwater levels; reduction in storage; water quality degradation; seawater intrusion; inelastic land subsidence; and adverse impacts on hydrologically connected surface water. Therefore, the Project would not conflict with or obstruct implementation of a sustainable groundwater management plan.

The Project would result in less than significant impacts relative to this threshold, and no mitigation measures are either required or recommended.

4.9.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As discussed above, the Project would result in short-term construction impacts to surface water quality from demolition, grading, and other construction-related activities. Also, during Project operations potential water quality contamination might occur. Similar to the proposed Project, cumulative projects in the vicinity would be required to prepare and implement a SWPPP and Preliminary/Final WQMPs, which would minimize the potential for water quality degradation on a cumulative basis.

The Project does not occur in a flood hazard, tsunami, or seiche zone; therefore, there is no potential for the Project to contribute to cumulative impacts related to these topics. The Project would reduce impervious surface and storm water runoff volume from the Project site, while increasing on-site infiltration; therefore, there is no potential for cumulative impacts related to result from the Project related to storm water volume, off-site flooding, or consistency with sustainable groundwater management plans.

4.9.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

SC HWQ-1: County Standard Condition of Approval WQ01.

Prior to the issuance of any grading or building permits, the applicant shall submit for review and approval by the Manager, Inspection Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine structural and non-structural measures specified in the current Drainage Area Management Plan (DAMP). The WQMP must also:

- Address Site Design BMPs (as applicable) such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or “zero discharge” areas, and conserving natural areas;
- Incorporate applicable Routine Source Control BMPs as defined in the DAMP; and
- Include an Operation and Maintenance (O&M) Plan that identifies the mechanism(s) by which long-term O&M of all structural BMPs will be provided.

SC HWQ-2: County Standard Condition of Approval WQ02.

Prior to the issuance of any grading or building permits (for Priority Projects), the applicant shall include in the WQMP the following additional Priority Project information in a manner meeting the approval of the Manager, Inspection Services Division:

- Include post-construction Treatment Control BMP(s) as defined in the DAMP;
- For applicants relying on Regional Treatment Controls, discuss applicable regional water quality and/or watershed program; and
- Include an Operation and Maintenance (O&M) Plan that (1) describes the long-term operation and maintenance requirements for post-construction Treatment Control BMP(s); (2) identifies the entity that will be responsible for long-term operation and maintenance of the referenced Treatment Control BMP(s); and (3) describes the mechanism for funding the long-term operation and maintenance of the referenced Treatment Control BMP(s).

SC HWQ-3: County Standard Condition of Approval WQ03.

Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the WQMP in a manner meeting the satisfaction of the Manager, Inspection Services Division, including:

- Demonstrate that all structural Best Management Practices (BMPs) described in the project's WQMP have been implemented, constructed and installed in conformance with approved plans and specifications;
- Demonstrate that the applicant has complied with all non-structural BMPs described in the project's WQMP;
- Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs for attachment to the WQMP;
- Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the incoming occupants;
- Agree to pay for a Special Investigation from the County of Orange for a date (12) twelve months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan; and
- Demonstrate that the applicant has agreed to and recorded one of the following: 1) the CC&R's (that must include the approved WQMP and O&M Plan) for the project Home Owner's Association; 2) a water quality implementation agreement that has the approved WQMP and O&M Plan attached; or 3) the final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan.

SC HWQ-4: County Standard Condition of Approval WQ04.

Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing in a manner meeting the satisfaction of the Manager, Building Permit Services. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for County review on request.

SC HWQ-5: County Standard Condition of Approval WQ05.

Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Building Permit Services, to demonstrate compliance with local and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the applicant will ensure that all BMP's will be maintained during construction of any future public rights-of-way. A copy of the current ESCP shall be kept at the project site and be available for County review on request.

Mitigation Measures

No significant impacts pertaining to hydrology and water quality were identified; therefore, no mitigation measures are either required or recommended.

4.9.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to hydrology and water quality materials would be less than significant, and no mitigation measures are either required or recommended.

4.9.8 REFERENCES

Federal Emergency Management Agency. 2021 (October 15, last accessed). Flood Insurance Rate Map (FIRM) Panel 06059C0168J.

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4.10 LAND USE AND PLANNING

4.10.1 EXISTING CONDITIONS

The Project site is located within the community of North Tustin in unincorporated Orange County at 11782 Simon Ranch Road on Assessor's Parcel Number 104-321-01, as shown in the Exhibit 1-1, Project Location Map and Exhibit 1-2, Aerial Photograph. The Project site is zoned as A1 "General Agricultural" District. As described in Section 7-9 30.2 of the County of Orange Code of Ordinances, single family homes and townhomes are principal permitted uses within the A1 zone. As stated in Section 7-9-30.3 of the County of Orange Code of Ordinances, the A-1 zone requires a minimum 4 acres per building site and allows no more than one single-family residence per building site (County of Orange 2021b). The Project site has a General Plan land use designation of Suburban Residential (1B) Communities which allows for a density of 0.5 to 18 dwelling units per acre (du/ac) (County of Orange 2021a). Single family residential land uses surround the Project site in all directions, with the rear yards of adjacent residences abutting the Project site on all sides. The Project site is not located within the boundaries of the North Tustin Specific Plan. The City of Tustin city limits are adjacent to the eastern Project site boundary.

As noted above, the Project site is currently developed with the Tustin Hills Racquet and Pickleball Club. The site is currently developed with eight full-sized tennis courts, twelve pickleball courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet and meeting rooms accommodating 330 individuals and administrative offices, for a total of approximately 10,000 square feet. The facility is served by a paved parking area that can accommodate approximately 127 cars.

4.10.2 REGULATORY SETTING

Regional

Regional Housing Needs Assessment

The Regional Housing Needs Assessment (RHNA) is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan. RHNA quantifies the need for housing within each jurisdiction during specified planning periods. Communities use RHNA in land use planning, prioritizing local resource allocation, and in deciding how to address identified existing and future housing needs resulting from population, employment, and household growth. RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that collectively the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promotes transportation mobility, and addresses social equity and fair share housing needs. On March 4, 2021, the SCAG Regional Council adopted the 6th Cycle Final RHNA Allocation Plan, which assigns housing need for each jurisdiction in the SCAG region for the October 2021 through October 2029 planning period. The County of Orange's RHNA housing need allocation is 10,406 units (SCAG 2021).

Local

County of Orange 2021-2029 Housing Element

The County of Orange is currently updating the Housing Element of the General Plan covering the planning period from 2021–2029 (County of Orange 2021a). The Housing Element serves as a policy guide to address the comprehensive housing needs of the unincorporated areas within Orange County. The primary focus of the Housing Element is to ensure decent, safe, and sanitary housing for current and future residents of the unincorporated areas.

In the Housing Element, the County of Orange must identify land that is zoned to permit residential uses in order to meet the County of Orange’s RHNA allocation of 10,406 units within unincorporated areas of Orange County by October 2029. Additionally, the County of Orange must establish goals, policies, objectives, and implementation programs to meet the existing and projected housing needs of the unincorporated County of Orange.

County of Orange Code of Ordinances

The County of Orange Code of Ordinances are a compilation of the rules, regulations, or codes that were enacted into law by the County of Orange. The Code of Ordinances is divided into separate sections, of which Title 7, Land Use and Building Regulations is most applicable to this Project. Title 7 of the County of Orange Code of Ordinances contains building regulations, electrical and plumbing requirements, which would apply to the Project. Also, Title 7, Division 9 contains planning -related rules and regulations, including the County of Orange Comprehensive Zoning Code. The Comprehensive Zoning Code includes regulations and site development standards for each zoning district, as well as general site development regulations applicable across zoning districts (County of Orange 2021b).

4.10.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in a significant land use impact if it would:

- a) Physically divide an established community; or
- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.10.4 IMPACT ANALYSIS

a) Would the Project physically divide an established community?

No Impact. The Project consists of a residential community that would be built on a currently occupied private racquet club, which would be demolished as part of the Project. The Project site does not include any public roads, paths, or trails that provide connectivity to established communities that would be impacted by the Project. Under the Project, public vehicular, bicycle, and pedestrian access along Pavilion Drive, Simon Ranch Road, and Outlook Lane would all be

maintained. Therefore, the Project would result in no impacts related to this threshold, and no mitigation measures are either required or recommended.

b) Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact.

Regional Housing Needs Assessment

According to the 6th Cycle Final RHNA Allocation Plan, the County of Orange needs to update its Housing Element to demonstrate that it can accommodate 10,406 housing units by 2029 (SCAG 2021) within unincorporated areas such as this portion of North Tustin. The Project would not remove any housing and would result in the increase of housing within the County by 37 units. Therefore, the Project would not conflict with the Southern California Association of Governments' (SCAG's) RHNA for the County of Orange, nor would the Project inhibit the County of Orange from achieving their RHNA allocation.

County of Orange General Plan

The General Plan is the long-range guide for growth and development in the unincorporated areas of Orange County. The general plan functions as a guide for the type of community that is desired for the future and provides the means to achieve it. The residential land use categories identify those areas suitable for residential development. Residential uses are divided into categories on the basis of density, relation to the County of Orange's street system and to transit, compatibility with the natural terrain, and conformance with the County of Orange's residential growth projections. Housing types ranging from rural, large-lot estates in outlying areas to high-density residential units in appropriate urban locales are encouraged (County of Orange 2021a).

The Project site is currently developed as the Tustin Hills Racquet and Pickleball Club and is designated by the County of Orange General Plan, Land Use Element Map as Suburban Residential (1B). According to Table III-1, Building Intensity/Population Density Standards, of the County of Orange Land Use Element, this designation allows for a wide range of housing types, from estates on large lots to attached dwelling units including townhouses, condominiums, and clustered arrangements. This designation also permits the greatest flexibility for residential development. The Intensity/Density Characteristics and Standards under 1B allow for development of 0.5-18 dwelling units per acre (du/ac), 2.59 persons per du and from 1 to 47 persons per acre. As such, the proposed 37 units (34 single-family townhome units and 3 single-family detached units), which has a density of 6.29 du/ac, is consistent with the General Plan and would not require a change in land use designation.

County of Orange Code of Ordinances

The Project site is located on a site zoned as A1 "General Agricultural District". The district is established to provide zoning for agriculture, outdoor recreation, and other low intensity uses and further states "It is also intended that this district may be used as an interim zone in those areas which the General Plan may designate for more intensive urban uses in the future" as the

County of Orange General Plan Land Use Element identifies that agricultural zoning is not an indication of a long-term commitment to specific uses because the General Plan may designate for more intensive urban uses in the future (County of Orange 2021a). Single family homes and townhomes are principal permitted uses within the A1 zone (OCCO 7-9-30.2). A-1 requires a minimum 4 acres per building site and allows no more than one single-family residence per building site. (OCCO 7-9-30.3). Based on the zoning, the proposed single-family townhome units (formally mapped for condominium purposes) are not a permitted use. However, pursuant to Government Code section 65589.5(j)(4), a zone change is not required for this Project because the Project is consistent with the objective General Plan standards and criteria but the zoning for the Project site is inconsistent with the General Plan due to the inconsistency with the density allowances.

Title 7, Divisions 1 through 3, of the County of Orange Code of Ordinances contains building regulations, electrical and plumbing requirements, which apply to the Project and have been incorporated into Project design. The Project would be required to pay Development Fees as outlined in Title 7, Division 9, Article 7.

Minimum building setbacks have been incorporated into the Project's design, which include the following minimums: 15-foot rear setback; 10-foot front setback; 5-foot side setback from a lot line; and 10-foot side setback from an adjacent structure at ground level. The proposed residences would be two stories, however the second story elements are proposed to be limited in area to approximately 65% of the area of the first story, allowing the second stories to be stepped back. The second-floor building setback as compared to first floor would vary throughout the buildings from approximately 5 feet to approximately 21 feet depending on location.

The Project would require the approval of a use permit to allow for a planned development, consistent with the requirements of the County of Orange Code of Ordinances (County of Orange 2021b).

Although the zoning and General Plan designations are inconsistent as to allowable density, housing is permitted under both designations and A-1 under the zoning code and General Plan is often considered a holding category for future development. Thus, the inconsistency is not one concerning use. Moreover, residential development in an area surrounded by residential development is not inconsistent.

Applicability of Previously-Recorded Restrictive Covenants on the Project

A Draft Initial Study/Mitigated Negative Declaration (IS/MND) was previously prepared and circulated for the Project in May 2020. During circulation of the IS/MND, comments were received pointing out that on September 24, 1974, the (prior) owner of the Project site recorded a restrictive covenant that restricts the use of the Project Site. Commenters sent excerpts of the 1974 restrictive covenant which states that land uses would be limited to either that of a commercial or non-commercial private membership tennis club, and in the event that the use shall be other than of a commercial or non-commercial private membership tennis club, such other use shall conform to the uses permitted in Tract #3883. Comments stated that the Project violates the 1974 restrictive covenant.

The deed covenant in question is a private restriction by and between the then-owner of the tennis club (and successive tennis club owners) and the homeowners of Tract 3883, The County of Orange is not a party to the agreement, and therefore cannot enforce the agreement. County of Orange documentation reveals that the covenant was offered by the tennis club owners in exchange for homeowner support of a Zone Change proposed for the tennis club property from E4-20,000 to A1. On August 7, 1974, the Board of Supervisors approved the change in zone, but did not include the deed covenant or any condition on the development related to the covenant in its action.

Applicability of the Tract 3883 (Red Hill Ridge community) Declaration of Restrictions on the Project

Comments were received on the Draft IS/MND in 2020 stating that on August 22, 1962, the Declaration of Restrictions for Tract 3883 (Red Hill Ridge Estates) was recorded (Document No. 17356) in the official records of Orange County, California. In Book 6222, pages 500 through 506, the Declaration of Restrictions set forth, among other things, a minimum lot size requirement of 20,000 square feet and restricts uses to one, detached single-family dwelling unit per lot. The Project violates the 1962 Declaration of Restrictions for Tract 3883.

The deed covenant in question is a private restriction by and between the then-owner of the tennis club (and successive tennis club owners, now known as the Tustin Hills Racquet Club) and the homeowners within Tract 3883. The County of Orange is not a party to the agreement, and therefore cannot enforce the agreement. County of Orange documentation reveals that the covenant was offered by the tennis club owners in exchange for homeowner support of a Zone Change proposed for the tennis club property from E4 (Small Estates)-20,000 to A1 (General Agricultural). On August 7, 1974, the Board of Supervisors approved the Zone Change, but did not include the deed covenant or any condition on the development related to the covenant in its action.

Conclusion

Because the Project will not conflict with any of these plans or policies, the Project will not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Less than significant impacts would result from the Project related to this threshold, and no mitigation measures are either required or recommended.

4.10.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As described above, the Project would not divide an established community. Therefore, the Project has no potential to cumulatively contribute to impacts related to this threshold.

The Project and other cumulative projects are not anticipated to conflict with any land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The Project and cumulative projects are reviewed for consistency with applicable plans, policies, and ordinances as part of the County of Orange or City design review processes.

4.10.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to land use and planning were identified; therefore, no mitigation measures are required.

4.10.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to land use and planning would be less than significant, and no mitigation measures are required or recommended.

4.10.8 REFERENCES

Orange, County of. 2021a. (October 12, last accessed). County of Orange General Plan. Santa Ana, CA: County of Orange, Development Services.

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4.11 NOISE

4.11.1 EXISTING CONDITIONS

Noise Basics and Terminology

“Sound” is a vibratory disturbance in air pressure created by a moving or vibrating source. “Noise” is defined as a sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. Although the terms “sound” and “noise” are often used synonymously, perceptions of sound and noise are highly subjective (Caltrans 2013). The effects of noise on people can include general annoyance; interference with speech communication; sleep disturbance; and, in the extreme, hearing impairment.

Decibels and Frequency

In its most basic form, a continuous sound can be described by its frequency or wavelength (pitch) and its amplitude (loudness). Frequency is expressed in cycles per second, or hertz. Frequencies are heard as the pitch or tone of sound. High-pitched sounds produce high frequencies; low-pitched sounds produce low frequencies. Sound pressure levels are described in units called the decibel (dB).

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB.

Perception of Noise and A-Weighting

A typical noise environment consists of a base of steady “background” noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. The local sources can vary from an occasional aircraft or train passing by, to intermittent periods of sound (such as amplified music), to virtually continuous noise from, for example, traffic on a major highway.

The human ear is not equally sensitive to all frequencies within the sound spectrum such as very high or low frequency sounds. To accommodate this phenomenon, the A-scale was devised; the A-weighted decibel scale (dBA or db[A]) approximates the frequency response of the average healthy ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-weighted sound levels of those sounds. Therefore, the “A-weighted” noise scale is used for measurements and standards involving the human perception of noise.

Human perception of noise has no simple correlation with acoustical energy. Due to subjective thresholds of tolerance, the annoyance of a given noise source is perceived very differently from person to person. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at 3 feet is approximately 60 dBA, while loud jet engine noises at 1,000 feet equate to 100 dBA, which can cause serious discomfort. Table 4.11-1, Noise Levels for Common Activities, shows the relationship of various noise levels in dBA to commonly experienced noise events.

**TABLE 4.11-1
NOISE LEVELS FOR COMMON ACTIVITIES**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
-	110	Rock Band
Jet Fly-over at 300 m (1,000 ft)	100	-
Gas Lawn Mower at 1 m (3 ft)	90	-
Diesel Truck at 15 m (50 ft) at 80 km/hr (50 mph)	80	Food Blender at 1 m (3 ft); Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower at 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area, Heavy Traffic at 90 m (300 ft)	60	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	50	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
-	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing
dBA: A-weighted decibels; m: meter; ft: feet; km/hr: kilometers per hour, mph: miles per hour.		
Source: Caltrans 2013.		

Two noise sources do not “sound twice as loud” as one source. As stated above, a doubling of noise sources results in a noise level increase of 3 dBA. It is widely accepted that (1) the average healthy ear can barely perceive changes of a 3 dBA increase or decrease in outdoor environments; (2) a change of 5 dBA is readily perceptible; and (3) an increase (or decrease) of 10 dBA sounds twice (or half) as loud (Caltrans 2013). The generally accepted level at which changes in community noise levels become “barely perceptible” typically occurs at values greater than 3 dBA.

Noise Propagation

From the source to the receiver, noise changes both in level and frequency spectrum. The most obvious change is the decrease in noise level as the distance from the source increases. The manner in which noise reduces with distance depends on the factors described below.

Geometric Spreading from Point and Line Sources: Sound from a small, localized source (approximating a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern. For point sources, such as Heating, Ventilation, and Air Conditioning (HVAC) units or construction equipment, the sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of the distance (i.e., if the noise level is 70 dBA at 25 feet, it is 64 dBA at 50 feet). Vehicle movement on a road makes the source of the sound appear to emanate from a

cylindrical pattern rather than a point when viewed over some time interval. The sound level attenuates or drops off at a rate of 3 dBA per doubling of distance for line sources.

Ground Absorption: To account for the ground-effect attenuation (absorption), two types of site conditions are commonly used in noise prediction: soft site and hard site conditions. Hard sites (i.e., sites with a reflective surface between the source and the receiver, such as parking lots or smooth bodies of water) receive no reduction from ground attenuation relate to absorption, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. Soft sites are sites that have an absorptive ground surface (e.g., soft dirt, grass, or scattered bushes and trees) and receive an ground attenuation value of 1.5 dBA per doubling of distance.

Atmospheric Effects: Wind speed will bend the path of sound to “focus” (increase) it on the downwind side and make a “shadow” (reduction) on the upwind side of the source. At short distances, the wind has minor influence on the measured sound level. For longer distances, the wind effect becomes appreciably greater. Temperature gradients create effects similar to those of wind gradients, except that they are uniform in all directions from the source. On a sunny day with no wind, temperature decreases with altitude, giving a shadow effect for sound. On a clear night, temperature may increase with altitude, focusing sound on the ground surface.

Shielding by Natural and Man-Made Features, Noise Barriers, Diffraction, and Reflection: A large object in the path between a noise source and a receiver can significantly attenuate noise levels at that receiver location. The amount of attenuation provided by this “shielding” depends on the size of the object, proximity to the barrier, and the frequencies of the noise levels. Natural terrain or landform features as well as man-made features (e.g., buildings and walls) can significantly alter noise exposure levels at a receptor. For a noise barrier to work, it must be high enough and long enough to block the view from the receiver to a road or to the noise source. Effective noise barriers can reduce outdoor noise levels at the receptor by up to 15 dB whereas enclosures can achieve 20 dB or greater reductions in noise levels.

Noise Descriptors

Several rating scales (or noise “metrics”) exist to analyze effects of noise on a community. These scales include the equivalent noise level (L_{eq}), the community noise equivalent level (CNEL), and the day-night average sound level (L_{dn}). Average noise levels over a period of minutes or hours are usually expressed as dBA L_{eq} , which is the equivalent noise level for that period of time. The period of time averaging may be specified; for example, $L_{eq(3)}$ would be a 3-hour average. When no period is specified, a one-hour average is assumed. Noise of short duration (i.e., substantially less than the averaging period) is averaged into ambient noise during the period of interest. Thus, a loud noise lasting many seconds or a few minutes may have minimal effect on the measured sound level averaged over a one-hour period.

To evaluate community noise impacts, L_{dn} was developed to account for human sensitivity to nighttime noise. L_{dn} represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into two periods: daytime (7 a.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.). The nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels. CNEL is similar to L_{dn} except that it separates a 24-hour day into 3 periods: daytime (7 a.m. to 7 p.m.), evening (7 p.m. to 10 p.m.), and nighttime (10 p.m. to 7 a.m.). The evening sound levels are assigned a 5 dBA penalty

and the nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels.

Several statistical descriptors are often used to describe noise including L_{max} , L_{min} , and $L_{\%}$. L_{max} and L_{min} are respectively the highest and lowest A-weighted sound levels that occur during a noise event. The $L_{\%}$ signifies the noise level that is exceeded a certain percent of the time; for example, L_{10} denotes the level that was exceeded 10 percent of the time.

Groundborne Vibration

In contrast to airborne noise, groundborne vibration is not a common environmental problem. Whereas airborne transmit pressure waves through air, groundborne vibration is transmitted through a solid medium such as the ground or a structure. Some common sources of groundborne vibration are construction activities such as blasting, pile driving, and operating heavy earth-moving equipment. Trains and similar rail vehicles can also produce vibration. It is unusual for vibration from sources such as buses and trucks to be perceptible.

In quantifying vibration, the peak particle velocity (ppv) is most frequently used to describe vibration impacts and is typically measured in inches per second (in/sec). Vibration levels that may cause annoyance to humans are described using the vibration decibel. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source.

Ambient Noise Environment

Field Survey

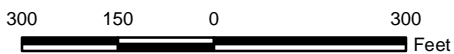
To document the existing ambient noise environment, a field survey was conducted on September 22, 2021, to measure noise levels near the Project site. Four noise measurements were collected at the locations shown in Exhibit 4.11-1, Noise Monitoring Locations. Noise monitoring was conducted using a Quest Technologies Model 2900 Type 2 Integrating/logging Sound Level Meter. The results of the field study are summarized in Table 4.11-2, Existing Site Noise Measurement Results, and each monitoring location is discussed individually below.



Noise Monitoring Locations

Exhibit 4.11-1

Ranch Hills Planned Development



**TABLE 4.11-2
EXISTING SITE NOISE MEASUREMENT RESULTS**

Monitoring Location	L_{eq} (dBA)	L₀₂ (dBA)	L₀₈ (dBA)	L₂₅ (dBA)	L₅₀ (dBA)	L_{min} (dBA)	L_{max} (dBA)
NR-1	51.5	57.8	54.6	51.7	49.8	43.0	64.2
NR-2	48.7	58.9	53.6	46.2	41.4	33.8	65.6
NR-3	46.5	56.1	50.6	43.9	41.5	35.3	64.4
NR-4	55.1	65.1	57.3	53.0	50.8	45.1	69.9

NR: noise reading; dBA: A-weighted decibel scale.

Note: The L_{eq} represents the equivalent sound level and is the numeric value of a constant level that over the given period of time transmits the same amount of acoustic energy as the actual time-varying sound level. The L₀₂, L₀₈, L₂₅, and L₅₀ are the levels that are exceeded 2, 8, 25, and 50 percent of the time, respectively. Alternatively, these values represent the noise level that would be exceeded for 1, 5, 15, and 30 minutes during a 1-hour period if the readings were extrapolated out to an hour's duration. The L_{min} and L_{max} represent the minimum and maximum root-mean-square noise levels obtained over a period of 1 second during the measurement.

Source: Appendix L, Noise Calculations.

Noise Reading 1

Noise Reading 1 (NR-1) was measured over the lawn next to the driveway leading into the existing racquet club from Pavillion Drive. Specifically, the meter was placed 50 feet north of the roadway's centerline and 25 feet from the centerline of the road into the parking lot. The road is posted for 25 miles per hour (MPH). The noise sources at this location consisted of traffic, chainsaws/leaf blowers, music and people at the racquet club, birds, and aircraft overflights.

Noise Reading 2

The community to the west of the Project site, and specifically residences adjacent to the Project site along Willard Avenue, is a private gated community. As such, the desired noise reading at this location was not obtained due to restricted access. In lieu of monitoring noise at this location, noise measurements were obtained outside the guard gate into the complex at the terminus of Rawlings Way along the north side of the street over the lawn. Specifically, the meter was placed 50 feet east of the gate and 20 feet south of the masonry wall at the terminus of Rawlings Way. Noise sources at NR-2 included vehicular traffic, guard gates, birds, and aircraft overflights.

Noise Reading 3

The measurement at location NR-3 was obtained at the terminus of Racquet Hill northeast of the Project site. The primary source of noise was from aircraft overflights and vehicular traffic. Other noise sources included dogs and birds, and the noise from back-up alarms associated with the construction at the Tustin Reservoir located along Overlook Lane.

Noise Reading 4

The measurement at location NR-4 was taken at the terminus of Overlook Lane between the driveways leading to 11751 and 11752 Overlook Lane north of the Project site. The primary noise sources during this reading included chainsaws/leaf blowers (for tree-trimming activities nearby) and vehicular traffic.

Sensitive Noise Receptors

The County of Orange General Plan Noise Element defines sensitive land uses as residential, schools, hospitals, and places of worship. The area surrounding the Project site consists primarily of residential uses. The nearest sensitive receptors to the Project site are residential uses on all sides of the Project's boundary, with the façade of the nearest receptor located approximately 20 feet southwest of the Project site.

4.11.2 REGULATORY SETTING

Federal

U.S. Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development (HUD) has set a goal of 45 dBA L_{dn} as a desirable maximum interior noise standard for residential units developed under HUD funding (HUD 1984). While HUD does not specify acceptable exterior noise levels, standard construction of residential dwellings constructed pursuant to standards established under Title 24 of the California Code of Regulations typically provides 20 dBA, or more, of attenuation with the windows closed. Based on this premise, the exterior L_{dn} should not exceed 65 dBA (CBSC 2018).

State

California Office of Noise Control—Noise Compatibility Standards

The California Office of Noise Control has set acceptable noise limits for sensitive uses. Sensitive -type land uses, such as homes, are “normally acceptable” in exterior noise environments up to 65 dBA CNEL and “conditionally acceptable” in areas up to 70 dBA CNEL. A “conditionally acceptable” designation implies that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use type is made and needed noise insulation features are incorporated in the design. By comparison, a “normally acceptable” designation indicates that standard construction can occur with no special noise reduction requirements.

California Noise Insulation Standards

Title 24 of the California Code of Regulations, also known as the California Building Standards Code or, more commonly, the California Building Code, requires that residential structures other than detached single-family dwellings be designed to prevent exterior noise intrusion so that the interior Day-Night L_{dn} or CNEL attributable to exterior sources does not exceed 45 dBA in any habitable room with closed windows.

Local

County of Orange

General Plan

The Noise Element, one of nine elements of the County of Orange General Plan, contains official policies on the conservation and management of resources (County of Orange 2021a). The Noise Element defines a Noise Referral Zone as “that area with a total noise environment of 60 decibels Community Noise Equivalent Level (CNEL) or more . . . The intent of the Noise Referral Zone is to act as a triggering mechanism or flag for development proposals in areas potentially adversely affected by high noise levels . . . [U]nless it can be shown with certainty that the project is outside the area that has a CNEL of 60 or more decibels, an acoustical analysis report will be required”.

The Noise Element states, “A key objective of this Noise Element is to ensure that each County resident’s quality of life is not affected adversely by high noise levels”. The information from Tables VIII-2 and VIII-3 of the Noise Element defines the County of Orange’s land use/noise compatibility standards. The Noise Element states that these standards apply to situations where a new use is being proposed that is impacted by an existing noise source and also when an existing use is impacted by a new or expanded source of noise. For the latter case, the project proponent is obligated to mitigate the impacts of the new source of noise (County of Orange 2021a).

Per the County of Orange’s compatibility matrix for land use and CNEL, there are actions and standards required to ensure compatibility between land uses and noise from external sources. For example, for residential land uses, in areas with 65+ dB CNEL, new residential uses are prohibited in areas within the 65-contour from any airport or air station, but allowed in other areas if interior and exterior areas if can be mitigated. The prohibition against new residential development excludes limited “infill” development within an established neighborhood. In areas with 60 to 65 dB CNEL, residential uses are allowed if interior levels can be mitigated, with an interior standard of CNEL of less than 45 dB in habitable rooms only. The Noise Element notes that projects located in areas of less than 60 dBA CNEL would not be subject to noise impact requiring mitigation for the proposed land use. Further specifics are detailed in the Land Use/Noise Compatibility Manual within the County of Orange Noise Element.

County of Orange Code of Ordinances

The goals of the Noise Element are administered through the County Code of Ordinances. The Code sets standards for noise that is subject to local regulation and excludes any activity to the extent regulation thereof has been preempted by State or federal law including the operation of motor vehicles when operating on public roadways (County of Orange 2021b).

Section 4-6-5 of the County Code of Ordinances notes that unless otherwise specifically indicated, all properties within the unincorporated areas of Orange County are designated as residential and are subject to the standards included Table 4.11-3, County of Orange Noise Standards.

**TABLE 4.11-3
COUNTY OF ORANGE NOISE STANDARDS**

Receiver Location	Noise Metric	Noise Levels not to be Exceeded in Residential Zone	
		7 a.m. to 10 p.m. (daytime)	10 p.m. to 7 a.m. (nighttime)
Exterior Noise Standards			
30 Minutes/Hour	L(50)	55 dBA	50 dBA
15 minutes/1 hour	L(25)	60 dBA	55 dBA
5 minutes/1 hour	L(8.3)	65 dBA	60 dBA
1 minute/1 hour	L(1.7)	70 dBA	65 dBA
Any period of time	L(max)	75 dBA	70 dBA
Interior Noise Standards			
5 minutes/1 hour	L(8.3)	55 dBA	45 dBA
1 minute/1 hour	L(1.7)	60 dBA	50 dBA
Any period of time	L(max)	65 dBA	55 dBA
Source: County of Orange Zoning Code Division 6, Section 4.6.1. (County of Orange 2021b).			

Section 4-6-6, Interior Noise Standards, notes that the interior noise standards included in Table 4.11-3, County of Orange Noise Standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone (i.e., Unincorporated Orange County).

Section 4-6-7, Special Provisions, exempts various activities from the provision of the standards. Those exemptions of relevance to the Project include (e) noise relevant to site construction, (i) noise relevant to the maintenance of real property, and (j) activities preempted by State or federal law including the operation of motor vehicles on public roadways. These provisions relevant to the Project are included below:

- e) Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8 p.m. and 7 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.
- j) Noise sources associated with the maintenance of real property, provided said activities take place between 7 a.m. and 8 p.m. on any day except Sunday or a Federal holiday, or between the hours of 9 a.m. and 8 p.m. on Sunday or a Federal holiday.
- i) Any activity to the extent regulation thereof has been preempted by State or Federal law.

City of Tustin Municipal Code

The Project site's southeastern boundary is adjacent to the City of Tustin. Because Project construction has the potential to impact noise sensitive land uses in either the County of Orange or the City of Tustin, for purposes of this analysis, the City of Tustin Noise Ordinance is provided.

The City of Tustin's noise ordinance, permitted by the State of California Health and Safety Code, provides a basis for controlling excessive and annoying noise from stationary sources such as construction activity, industrial plants, pumps, compressors, refrigeration units, etc. The ordinance provides specific noise standards to be applied for various land uses for both daytime and nighttime hours, prohibits certain noise sources, and describes the manner in which the noise standards are to be enforced.

Chapter 6, Noise Control, Section 4616: Specific Disturbing Noises Prohibited:

(2) Construction, repairing, remodeling, or demolition and grading. The erection, demolition, alteration, repair, excavation, grading, paving, or construction of any building or site is prohibited between the hours of 6 p.m. and 7 a.m., Monday through Friday and 5 p.m. and 9 a.m. on Saturdays and during all hours Sundays and city observed federal holidays. Trucks, vehicles, and equipment that are making or are involved with material deliveries, loading or transfer of materials, equipment service, maintenance of any devices or appurtenances to any construction project in the City shall not be operated on or adjacent to said sites outside of the approved hours for construction activity.

4.11.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in a significant noise impact if it would:

- a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?
- b) Result in generation of excessive groundborne vibration or groundborne noise levels?
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in exposure of people residing or working in the Project area to excessive noise levels?

4.11.4 IMPACT ANALYSIS

- a) Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?*

Less than Significant Impact.

The County of Orange Noise Ordinance (Division 6 Noise Control) is designed to control unnecessary, excessive, and annoying sounds from sources on private property by specifying noise levels that cannot be exceeded. Section 4-6-5 and 4-6-6 of the Noise Ordinance defines the interior and exterior noise level limits for noise from one property to adjacent residential land uses, as discussed above. Because Project construction has the potential to impact noise sensitive land uses in either the County of Orange or the City of Tustin, for purposes of this analysis, noise impacts were evaluated based on compliance with both the County of Orange Noise Ordinance and City of Tustin Noise Ordinance (**RR NOI-1**), discussed below.

Construction Noise

The development of the Project would involve construction activities which include noise generated from demolition, grading/excavation, and building construction activities. This would include on-site material recycling, which would require the use of equipment such as a rock (jaw) crusher during the demolition phase. Local residents would be subject to elevated noise levels due to the operation of Project-related construction equipment. Construction activities are carried out in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Construction noise levels reported in the U.S. Environmental Protection Agency's (USEPA's) Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances were used to estimate future construction noise levels for the Project (USEPA 1971). Typically, the estimated construction noise levels are governed primarily by equipment that produces the highest noise levels. Construction noise levels for each generalized construction phase (ground clearing/demolition, excavation, foundation construction, building construction, paving, and site cleanup) are based on a typical construction equipment mix for a residential project and do not include use of atypical, very loud, and vibration-intensive equipment (e.g., pile drivers). Construction of the Project would not include atypical, very loud, or vibration-intensive equipment.

The degree to which noise-sensitive receptors are affected by construction activities depends heavily on their proximity. Estimated noise levels attributable to the development of the Project at in proximity to sensitive receptors (i.e., surrounding residences) are shown in Table 4.11-4, Construction Noise Levels at Noise-Sensitive Uses. Noise calculations are included in Appendix L, Noise Calculations.

**TABLE 4.11-4
CONSTRUCTION NOISE LEVELS AT NOISE-SENSITIVE USES**

Construction Phase	Noise Levels (L _{eq} dBA)							
	Residences to the North		Residences to the South		Residences to the East		Residences to the West	
	Max. (40 ft)	Avg. (270 ft)	Max. (20 ft)	Avg. (270 ft)	Max. (25 ft)	Avg. (300 ft)	Max. (40 ft)	Avg. (300 ft)
Ground Clearing/Demolition*	85	68	91	68	89	67	85	67
Excavation (Site Preparation)	90	73	96	73	94	72	90	72
Foundation Construction	83	66	89	66	87	65	83	65
Building Construction	83	66	89	66	87	65	83	65
Paving	90	73	96	73	94	72	90	72

L_{eq} dBA: Average noise energy level; Max.: maximum; Avg.: average; ft: feet.
 * The specific noise levels of a rock (jaw) crusher would be lower than the noise levels occurring during the ground clearing/demolition phase. A rock crusher would result in 82 dBA L_{eq} at 45 feet (Ldn Consulting 2011).
 Note: Noise levels from construction activities do not take into account attenuation provided by intervening structures.
 Source: USEPA 1971. Construction noise calculations can be found in Appendix L, Noise Calculations.

Table 4.11-4, Construction Noise Levels at Noise-Sensitive Uses, shows both the maximum and average noise levels for construction equipment. Maximum noise levels represent the noise levels from construction equipment occurring nearest to the noise-sensitive residential structure to the Project site boundary. Average noise levels represent the noise exposure to sensitive uses based on the approximate distance to the center of the Project site. Noise levels from general Project-related construction activities would range from 83 to 96 dBA L_{eq} for the maximum noise levels and 65 to 73 dBA L_{eq} for the average noise levels. Further noise level reductions would be realized due to the presence of intervening structures (e.g., existing masonry walls and partially/fully completed portions of the existing/proposed structures). Additionally, noise levels from rock crushing activities were considered in Table 4.11-4, Construction Noise Levels at Noise-Sensitive Uses, during the ground clearing/demolition phase (Ldn Consulting 2011).

The Project would be required to comply with the County of Orange noise ordinance, which limits construction to Monday through Saturday between the hours of 7 a.m. and 8 p.m., with no construction allowed on Sundays and federal holidays. Also, since the Project site's southeastern boundary is adjacent to City of Tustin residents, the Project would result in a temporary increase in ambient noise levels which would affect City of Tustin residents. As such, the Project would be required to comply with the City of Tustin's noise ordinance, as detailed in **RR NOI-1**. **RR NOI-1** limits the hours of construction to Monday through Friday (between 7 a.m. and 6 p.m.) and on Saturday (between 9 a.m. and 5 p.m.), prohibiting construction on Sundays and during City-observed federal holidays.

No noise generating activities associated with construction of the Project would occur outside of the allowable construction hours for the City of Tustin (**RR NOI-1**), as these hours are more restrictive than the noise ordinance of the County of Orange. Additionally, the Project would be required to comply with **SC NOI-1**, which requires all construction vehicles or equipment (fixed or mobile) operating within 1,000 feet of an existing dwelling unit, to be equipped with properly

operating and maintained mufflers (County of Orange 2021c). **SC NOI-1** requires that all operations comply with the Orange County Codified Ordinance Division 6 for Noise Control.

Additionally, **SC NOI-1** requires that, during construction, stockpiling, or vehicle staging areas shall be located as far as practicable from residential dwellings. Overall, the most noise-intensive activity would occur during the initial stage of construction, during demolition, site preparation, and grading/trenching activities when heavy construction equipment are used. These activities would be short-term and would occur for a limited duration. The Project would not include extremely loud noise sources, such as impact pile driving. The majority of building construction phase would be done by hand when erecting the townhomes over three phases. Construction activities occurring in close proximity to surrounding residential uses would only occur for a fraction of the total construction duration. Additionally, construction activity would occur during the least noise-sensitive time of day and would not occur overnight and would comply with the limitations in construction hours established by the City of Tustin's noise ordinance (**RR NOI-1**). Compliance with **SC NOI-1**, would minimize noise. As such, there would be a less than significant impact regarding generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project.

Operational Noise

Operational On-Site Noise Sources

The primary on-site noise sources at residential buildings would be HVAC systems. HVAC units and other stationary equipment would be selected and installed to comply with Section 4-6-9, Air conditioning and refrigeration, of the County of Orange's Noise Ordinance. Because HVAC units are potentially continuous sources that may operate at night, the interior and exterior Noise Ordinances are applicable to HVAC units. There would also be the typical noise sources associated with residential development, including, but not limited to, children playing, home and yard maintenance activities, and barking dogs. These noise sources are consistent with the noise characteristics of residential uses surrounding the Project site and would also be subject to the noise limits established by the County of Orange's Noise Ordinance. Compliance with the County of Orange's Noise Ordinance would ensure that these impacts remain at less than significant levels. Noise from landscape maintenance would be similar to noise currently occurring in the existing residential neighborhoods and would need to comply with the time of occurrence limitations established within Section 4-6-7(i) of the County of Orange's Code of Ordinance. Thus, noise from these non-HVAC sources would not be anticipated to exceed the limits of the County of Orange's Noise Ordinance, and the Project would result in less than significant impacts regarding a substantial permanent increase in ambient noise levels in the vicinity of the Project.

The City of Tustin noise regulations would be adhered to by the Applicant during construction of the Project. However, as future residents of the Project site would be located within the County of Orange, residents would only be held to County of Orange requirements. Therefore, City of Tustin regulations would not be applicable during operation of the Project.

Operational Off-Site Noise Generated by Project Traffic

The Project uses would generate 205 fewer trips per day than the existing racquet club uses. Overall, a net reduction in traffic from implementation of the Project would result in a decrease of off-site noise generation related to vehicles. Therefore, impacts associated with off-site project traffic would be less than significant, and no mitigation measures are either required or recommended.

b) Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Construction Impacts

There are no applicable County of Orange standards for vibration-induced annoyance or structural damage from vibration. The California Department of Transportation (Caltrans) vibration damage potential guideline thresholds are shown in Table 4.11-5, Vibration Damage Threshold Criteria.

**TABLE 4.11-5
VIBRATION DAMAGE THRESHOLD CRITERIA**

Structure and Condition	Maximum ppv (in/sec)	
	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

ppv: peak particle velocity; in/sec: inch(es) per second.
 Note: 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.
 Source: Caltrans 2013

The structural damage threshold for “older residential structures” of 0.3 ppv in/sec is selected for analysis. This threshold represents the vibration limits for structural damage to adjacent uses to the Project site.

The Caltrans vibration annoyance potential guideline thresholds are shown in Table 4.11-6, Vibration Annoyance Criteria. Based on the guidance in Table 4.11-6, Vibration Annoyance Criteria, the “strongly perceptible” vibration level of 0.9 ppv in/sec is considered a threshold for a potentially significant vibration impact for human annoyance.

**TABLE 4.11-6
VIBRATION ANNOYANCE CRITERIA**

Average Human Response	ppv (in/sec)
Severe	2.0
Strongly perceptible	0.9
Distinctly perceptible	0.24
Barely perceptible	0.035
ppv: peak particle velocity; in/sec: inch(es) per second. Source: Caltrans 2013	

Pile driving and blasting are generally the sources of the most severe vibration during construction. Neither pile driving nor blasting would be used during Project construction. Conventional construction equipment would be used for demolition and grading activities. Table 4.11-7, Vibration Levels for Construction Equipment, summarizes typical vibration levels measured during construction activities for various vibration-inducing pieces of equipment.

**TABLE 4.11-7
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT**

Equipment	ppv at 25 ft (in/sec)	
Pile driver (impact)	upper range	1.518
	Typical	0.644
Pile driver (sonic)	upper range	0.734
	Typical	0.170
Vibratory roller	0.210	
Large bulldozer	0.089	
Caisson drilling	0.089	
Loaded trucks	0.076	
Jackhammer	0.035	
Small bulldozer	0.003	
Ppv: peak particle velocity; ft: feet; in/sec: inches per second. Source: Caltrans 2013; FTA 2006		

Demolition, grading, and construction would occur up to the Project site boundaries; and, as noted above, the Project site is adjacent to residential properties on the north, south, east, and west of the Project site boundary. Table 4.11-8, Vibration Annoyance and Structural Damage Criteria at Sensitive Uses, shows the vibration annoyance criteria from construction-generated vibration activities proposed at the Project site. In this case, the distances are measured from the Project site boundary to the most proximate residential portion of the structure.

**TABLE 4.11-8
VIBRATION ANNOYANCE AND STRUCTURAL DAMAGE
CRITERIA AT SENSITIVE USES**

Equipment	Vibration Levels (ppv)			
	Residents to the North	Residents to the South	Residents to the East	Residents to the West
	(ppv @ 40 ft)	(ppv @ 20 ft)	(ppv @ 25 ft)	(ppv @ 40 ft)
Vibratory Roller	0.10	0.29	0.21	0.10
Large bulldozer	0.04	0.12	0.09	0.04
Small bulldozer	0.00	0.00	0.00	0.00
Jackhammer	0.02	0.05	0.04	0.02
Loaded trucks	0.04	0.11	0.08	0.04
Annoyance Criteria	0.9	0.9	0.9	0.9
Exceeds Criteria?	No	No	No	No
Structural Damage Criteria	0.3	0.3	0.3	0.3
Exceeds Criteria?	No	No	No	No
ppv: peak particle velocity; Max: maximum; avg: average; ft: feet.				
Source: USEPA 1971. Construction noise calculations can be found in Appendix L, Noise Calculations.				

As shown in Table 4.11-8, Vibration Annoyance and Structural Damage Criteria at Sensitive Uses, ppv would not exceed either the annoyance or structural damage criteria thresholds when construction activities occur under maximum (i.e., closest to the receptor) exposure conditions. Per **SC NOI-1**, stockpiling and/or vehicle staging areas shall be located as far as practicable from residential dwelling units. Vibration from the rock crusher would be localized and would not be perceptible to off-site receptors due to the separation from the façade of nearby residences. Construction-related vibration would be substantially less under average conditions when construction activities are located farther away. Because vibration levels would be below the significance thresholds, vibration generated by the Project's construction equipment would not be expected to generate readily perceptible levels of vibration at the nearest uses, and would result in less than significant impacts related to vibration annoyance or structural damage.

Operational Impacts

There are no anticipated operational land uses that would produce vibration that would cause a potentially significant impact pursuant to this threshold. The Project's residential land uses would not generate substantial levels of vibration from either stationary or vehicular sources. As such, there would be a less than significant impact from vibration during operation of the Project, and no mitigation measures are either required or recommended.

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in exposure of people residing or working in the Project area to excessive noise levels?***

No Impact. The Project site is located approximately 6.5 miles northeast of John Wayne Airport and 13.5 miles southeast of the Fullerton Municipal Airport and is not located within the planning area for the Airport Environs Land Use Plan for John Wayne Airport (OC ALUC 2008) or Airport Environs Land Use Plan for Fullerton Municipal Airport (OC ALUC 2019). In addition, the Corona Municipal Airport is located 14.50 miles northeast of the Project site. While observed during the field study, aircraft overflights do not significantly contribute to the noise environment at the Project site, and the Project would not expose future Project residents to excessive noise levels in that regard.

In addition, the Project site is not located within the vicinity of a private airstrip. The nearest heliport is located at the Southern California Edison Southeastern Division Heliport, located approximately 4 miles away to the southwest. Due to the distance between the Project site and the heliport, noise from helicopter flights would not exceed the 65-dBA CNEL noise level. Therefore, it would not result in exposure of people residing or working in the Project area to excessive noise levels. No impact would occur, and no mitigation measures are either required or recommended.

4.11.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

Cumulative Short term (Construction) Noise and Vibration Impact

Noise and vibration impacts during construction of the Project would be localized and would occur intermittently for varying periods of time throughout the construction period. Short-term cumulative impacts related to ambient noise and vibration levels could occur if construction associated with the proposed Project as well as surrounding current and future development were to occur simultaneously and results in a substantial increase in noise exposure at nearby noise sensitive uses. Noise associated with construction of the proposed Project in combination with another project within approximately 500 feet of the Project site boundaries could adversely impact sensitive receptors in the vicinity of the Project with a cumulative noise level greater than the noise generated solely at the Project site. As detailed in Section 4.0, Impact Analysis, of this EIR, there is one project within 500 feet of the Project site (County of Orange 2021d). This would be the Simon Ranch Reservoir Pump Station within the City of Tustin. Construction of this project began in April 2020 and is estimated to be completed within 18 months. Construction of the Project is anticipated to be completed in 2024. Therefore, there would be no overlap in construction schedules for these projects. As such, there would be a less than significant cumulative construction noise and vibration impact from implementation of the Project.

Cumulative Long-Term (Operational) Noise and Vibration Impact

Cumulative traffic noise impacts are measured based on projected long-term future traffic noise level increases over existing conditions. A substantial cumulative noise increase would occur if future traffic noise levels increase by more than 3 dBA compared to existing conditions. As detailed in Section 4.15, Transportation, of this EIR, the Project would result in approximately 205 less daily trips than existing uses. Therefore, there would be a less than significant cumulative operational noise and vibration impact from implementation of the Project.

4.11.6 MITIGATION PROGRAM

Project impacts related to noise and vibration would be less than significant, and no mitigation measures are either required or recommended.

Regulatory Requirements

RR NOI-1 Per Chapter 6, Noise Control, Section 4616, Specific Disturbing Noise Prohibited, of the City of Tustin Municipal Code the erection, demolition, alteration, repair, excavation, grading, paving or construction of any building or site is prohibited between the hours of 6 p.m. and 7 a.m., Monday through Friday and 5 p.m. and 9 a.m. on Saturdays and during all hours Sundays and city observed federal holidays.

County Standard Conditions of Approval

SC NOI-1: County Standard Condition of Approval N10.

- A. Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, Building Permits Services, that:
 - 1. All construction vehicles or equipment, fixed or mobile, operated within 1,000' of a dwelling shall be equipped with properly operating and maintained mufflers.
 - 2. All operations shall comply with County of Orange Codified Ordinance Division 6 (Noise Control).
 - 3. Stockpiling and/or vehicle staging areas shall be located as far as practicable from residential dwellings.
- B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted grading plans, will be considered as adequate evidence of compliance with this condition.

Mitigation Measures

No significant impacts pertaining to noise and vibration were identified; therefore, no mitigation measures are either required or recommended.

4.11.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to noise and vibration would be less than significant, and no mitigation is required.

4.11.8 REFERENCES

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4.12 POPULATION AND HOUSING

4.12.1 EXISTING CONDITIONS

The existing Tustin Hills Racquet and Pickleball Club does not contain any housing or residents. However, the club employs a limited amount of staff to operate and maintain the facility.

Overall, the population of Orange County has increased from 3,010,232 in 2010 to 3,186,989 in 2020 (US Census 2010, 2020). The California Department of Finance projects that the population in Orange County will increase to 3,291,863 by 2030 (DOF 2022).

4.12.2 REGULATORY SETTING

State

California Housing and Community Development Department Projections

California housing law calls upon local jurisdictions to provide a fair-share of housing. In implementing this law, the California Housing and Community Development Department assigns fair share housing targets to each of the Council of Governments (COG) in the state based on the California DOF population projections and regional forecasts. Southern California Association of Governments (SCAG), a Joint Powers Agency established under Sections 6502 et. seq. of the California Government Code, is designated as a COG, a Regional Transportation Planning Agency, and a Metropolitan Planning Organization for the six-county region consisting of Orange, Los Angeles, Ventura, San Bernardino, Riverside, and Imperial Counties.

Regional

Regional Housing Needs Assessment

The Regional Housing Needs Assessment (RHNA) is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan. RHNA quantifies the need for housing within each jurisdiction during specified planning periods. Communities use RHNA in land use planning, prioritizing local resource allocation, and in deciding how to address identified existing and future housing needs resulting from population, employment, and household growth. RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that collectively the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promotes transportation mobility, and addresses social equity and fair share housing needs. On March 4, 2021, the SCAG Regional Council adopted the 6th Cycle Final RHNA Allocation Plan, which assigns housing need for each jurisdiction in the SCAG region for the October 2021 through October 2029 planning period. The County of Orange's RHNA housing need allocation is 10,406 units (SCAG 2021).

Local

County of Orange 2021-2029 Housing Element

The County of Orange is currently updating the Housing Element of the General Plan covering the planning period from 2021–2029 (County of Orange 2021a, 2021b). The Housing Element serves as a policy guide to address the comprehensive housing needs of the unincorporated areas within Orange County. The primary focus of the Housing Element is to ensure decent, safe, and sanitary housing for current and future residents of the unincorporated areas.

In the Housing Element, the County of Orange must identify land that is zoned to permit residential uses in order to meet the County of Orange’s RHNA allocation of 10,406 units within unincorporated areas of Orange County by October 2029. Additionally, the County of Orange must establish goals, policies, objectives, and implementation programs to meet the existing and projected housing needs of unincorporated areas of Orange County.

4.12.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to population and housing if it would:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

4.12.4 IMPACT ANALYSIS

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

Less than Significant Impact. The Project is not anticipated to generate substantial unplanned population growth. Using an estimate of 2.62 persons per dwelling unit for residential development (United States Census Bureau 2021), the 37-unit Project would generate approximately 97 new residents. When compared to the 2021 population of Orange County, which is 3,153,764 people, 97 new residents is not a substantial number of people (DOF 2021). Furthermore, the Project includes no commercial or other land uses that would generate jobs, so indirect population growth is not anticipated to result from the Project. Finally, the County of Orange is currently updating the Housing Element of its General Plan to meet the County of Orange’s RHNA allocation for the Sixth Cycle Housing Element Update, which is a total of 10,406 units of total new construction. Given that the Project is consistent with the County of Orange land use for the Project site and would provide a limited number of residential units, the Project would not result in substantial unplanned population growth, less than significant impacts would result related to this threshold, and no mitigation measures are either required or recommended.

b) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project proposes to construct 37 residential units on a site currently developed as a racquet club and will not require the demolition of any existing residential structures. Therefore, implementation of the Project will not displace existing housing or people and will not require the construction of replacement housing.

4.12.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As described above, the Project would provide a limited number of new housing units within an unincorporated area of Orange County that is being required to plan for the construction of an additional 10,406 units over the next ten years. Therefore, the Project and some of the other cumulative projects that include new housing units would cumulatively help the County of Orange to achieve the RHNA targets. Neither the Project nor any of the cumulative projects are expected to result in the displacement of substantial numbers of people or housing; therefore, there is not potential for cumulative impacts related to this topic, and no mitigation measures are either required or recommended.

4.12.6 MITIGATION PROGRAM

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to population and housing were identified; therefore, no mitigation measures are required.

4.12.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to population and housing would be less than significant, and no mitigation is required.

4.12.8 REFERENCES

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4.13 PUBLIC SERVICES

4.13.1 EXISTING CONDITIONS

Orange County Fire Authority

Fire protection services for the Project site are provided by the Orange County Fire Authority (OCFA), Operations Division 4. The Project site is in the Battalion 3 service area, which serves the area of Tustin Unincorporated (OCFA 2021a). The Project site is located approximately 1.4 miles southeast of the OCFA Fire Station 8 located at 10631 Skyline Drive, Santa Ana 92705, providing service to the Community of North Tustin. Fire Station 8 includes daily staffing of: 1 fire captain, 1 fire apparatus engineer, and 2 firefighters. Total station staffing consists of 12 firefighters, and apparatus include a Medic Engine 8 and an Engine 108 (OCFA 2021b).

Orange County Sheriff-Coroner Department

The Orange County Sheriff-Coroner Department provides police patrol and investigative services to the unincorporated areas of Orange County, including the Project site. North Operations, based at Sheriff's Headquarters in Santa Ana, is responsible for patrol services in the unincorporated areas of north Orange County. The Project site is located approximately 4 miles northeast of the Orange County Sheriff's Department Headquarters in Santa Ana.

Tustin Unified School District

The Project site is located within the Tustin Unified School District (TUSD). According to the TUSD website School Locator, the Project site is located within the attendance boundaries for Red Hill Elementary School (K-5), Hewes Middle School (6-8), and Foothill High School (9-12) (TUSD 2021). TUSD charges developer fees of \$4.08 per square foot for residential development and \$0.66 per square foot for commercial development (TUSD 2020).

Local and Regional Parks

The nearest public park is Bent Tree Park located approximately 0.8-mile northeast of the Project site in the Cowan Heights/Lemon Foothills. Bent Tree Park is a 6-acre neighborhood park located directly adjacent to Peters Canyon Regional Park. Located approximately 2 miles northwest of the Project site are Esplanade Park and Holderman Park. Esplanade Park is a 5-acre neighborhood park consisting of a narrow, linear park situated in a residential portion of North Tustin. Holderman Park is a 0.2 acre mini-park located adjacent to Esplanade Park. In addition, the proposed Project is located near several large regional open space areas. Three regional parks are located near the Project site including Peters Canyon Regional Park, Santiago Oaks Regional Park, and Irvine Regional Park (OC Parks 2022).

Orange County Public Library

The Orange County Public Library provides library service to the unincorporated areas of Orange County, including the Project site. The Orange County Public Library operates 33 branch library

facilities. (OCPL 2021a). The closest library facility is the Irvine/Katie Wheeler Library located at 13109 Old Myford Road approximately 1.4 miles southeast of the Project site (OCPL 2021b).

4.13.2 REGULATORY SETTING

State

Schools

To assist in providing school facilities to serve students generated by new development projects, the State passed Assembly Bill 2926 in 1986. This bill allows school districts to collect impact fees from developers of new residential and commercial/industrial building space. Development impact fees are also referenced in the 1987 Leroy Greene Lease-Purchase Act, which requires school districts to contribute a matching share of costs for construction, modernization, and reconstruction projects.

Senate Bill (SB) 50, which passed in 1998, provides a comprehensive school facilities financing and reform program, and enables a statewide bond issue to be placed on the ballot. The provisions of SB 50 allow the State to offer funding to school districts to acquire school sites, construct new school facilities, and modernize existing school facilities. SB 50 also establishes a process for determining the amount of fees developers may be charged to mitigate the impact of development on school facilities resulting from increased enrollment. Under this legislation, a school district could charge fees above the statutory cap only under specified conditions, and then only up to the amount of funds that the district would be eligible to receive from the State. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.”

SB 50 establishes three levels of developer fees that may be imposed upon new development by the governing board of a school district depending upon certain conditions within a district. The charging of Level 3 fees was suspended by SB 1016 in 2012 (Chapter 38, Statutes of 2012). Thus, Level 1 and Level 2 fees are described below.

Level 1: Level 1 fees are the base statutory fees. These amounts are the maximum that can be legally imposed upon new construction projects by a school district unless the district qualifies for a higher level of funding.

Pursuant to Section 65995 of the California Government Code, as of January 2008, the statutory maximum Level 1 school fees that may be levied by a school district on new development is a maximum of \$2.97 per assessable square foot of residential construction and a maximum of \$0.47 per square foot of enclosed and covered space for commercial/industrial development. These rates are established by the State Allocation Board and may be increased to adjust for inflation based upon a statewide cost index for Class B construction. To implement Level 1 fees, the governing board of a school district must adopt a nexus study linking development impacts and the need for construction of new facilities. Although not standard, such studies are frequently referred to as Developer Fee Justification Study.

Level 2: Level 2 fees allow the school district to impose developer fees above the statutory level, up to 50 percent of new school construction costs. To implement Level 2 fees, the governing

board of the school district must adopt a School Facilities Needs Analysis (SFNA) and meet other prerequisites in accordance with Section 65995.6 of the California Government Code.

The purpose of an SFNA is to determine the need for new school facilities attributable to growth from new residential development (California Government Code § 65995.6). An SFNA documents that the district has met prerequisite eligibility tests and calculates the fee per square foot of new development. If the school district is eligible for State new construction funding, the State will match the Level 2 fees if funds are available. According to the Office of Public School Construction, although they are currently not being released for funding school facilities, State funds for new school construction are available from existing bond measures.

Local

Public Services and Facilities Element of the County of Orange General Plan

The Public Services and Facilities Element of the County of Orange General Plan sets forth a comprehensive strategy for the planning, management, and implementation of public facilities that are necessary to meet existing and future demands (County of Orange 2021). The primary objectives of the Public Services and Facilities Element include the following: 1) Establishment of a framework that identifies and provides for the coordination and planning of public services and facilities (as described in the Element's six components); 2) Integration of public facilities planning with the other General Plan elements; and 3) Establishment of a process that promotes the provision of public services and facilities necessary to implement the General Plan.

4.13.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State California Environmental Quality Act Guidelines, a project would result in significant impacts related to public services if it would:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
 - (i) Fire protection
 - (ii) Police protection
 - (iii) Schools
 - (iv) Parks
 - (v) Other public facilities

4.13.4 IMPACT ANALYSIS

- a) ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause***

significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

Less than Significant Impact. The Project would increase the population in the area by approximately 97 residents, which would incrementally increase the demand for fire protection services, including administrative tasks associated with approval and construction of the Project (e.g., building plan check) and response to fire service calls once the Project is occupied. This minor increase in demand for fire protection services is not expected to independently require the construction of new or alteration of existing fire protection facilities to maintain an adequate level of fire protection service to the Project area. However, to maintain current levels of response times the Fire Department may need to add to their existing staffing to accommodate the proposed Project as well as other cumulative projects in the vicinity. Also, it is worth noting that the Project site, as currently developed, has an existing demand for emergency response.

According to Ms. Tamy Rivers in OCFA's Fire Preservation Department (Rivers 2019), implementation of the Project would not result in the need to modify any existing fire facilities or the need to construct new facilities. In addition, no fire personnel would need to be added and the existing service ration would not be affected.

In addition, the design of the dwelling units would conform to the Uniform Building and Fire Code, which requires implementation of design standards and requirements to reduce potential fire risk. Therefore, impacts would be less than significant and no mitigation measures are either required or recommended.

ii. Police protection?

Less than Significant Impact. The Orange County Sheriff-Coroner Department provides police patrol and investigative services to the unincorporated areas of Orange County. North Operations, based at Sheriff's Headquarters in Santa Ana, is responsible for patrol services in the unincorporated areas of north Orange County. North Patrol provides police services for the 72,212 residents of unincorporated Orange County with over 70,000 calls responded to for service each year (County of Orange 2021).

Although the existing racquet club use on the Project site already places some demand on police services, the Project would result in a minor incremental increase in the demand for police services with the addition of 37 units and approximately 97 new residents.

The Project as well as other future development in the City would be required to pay property taxes that would be used for future facility improvements necessary to ensure adequate levels of service. Any future projects would require their own environmental approvals. According to Lieutenant Rich (Rich 2019), due to its size, location, and type of development the Project would not create a demand for additional officers or resources to provide adequate service to the Project. Therefore, impacts related to police protection would be less than significant, and no mitigation measures are either required or recommended.

iii. Schools?

Less than Significant Impact. The number of students expected to be generated by the development of the 37 units would be minimal. Using TUSD student generation rates, the Project would result in the addition of approximately 14 students to local schools, consisting of 6 elementary school students, 4 middle school students, and 4 high school students, as shown below in Table 4.13-1, Estimated Project Student Generation (TUSD 2020). The Project as well as other future development in the TUSD service area would be required to pay developer school fees of \$4.08 per square foot for residential uses and \$0.66 per square foot for commercial uses that would be used for future facility improvements necessary to ensure adequate levels of service (TUSD 2020). Developer school fees are considered full and complete school facilities mitigation pursuant to SB 50. Therefore, impacts related to schools would be less than significant, and no mitigation measures are either required or recommended.

**TABLE 4.13-1
ESTIMATED PROJECT STUDENT GENERATION**

Grade Level	Student Generation Rate	Proposed Project	Estimated Student Generation
K-6	0.1584	37	6
7-8	0.0945	37	4
9-12	0.1154	37	4
Total			14

Source: TUSD 2020.

iv. Parks?

Less than Significant Impact. The Project would result in approximately 97 new residents that would incrementally increase the use of surrounding parks and open space areas; however, it should be noted that the Project would include recreational amenities including open space areas, a pool area with pool, jacuzzi, deck, and pool building, which are depicted in Exhibit 3-1, Conceptual Site Plan. These on-site recreational amenities would serve the future residents' demand for recreational facilities.

The County's Local Park Code is used for purposes of evaluating Project consistency as it reflects the County's policies regarding recreation standards. Section 7-9-502(g) of the County of Orange Local Park Code requires 2.5 acres of land per 1,000 residents, which at the density proposed by the Project would be 0.006 acre of parkland per unit. This would require approximately 0.22 acre of parkland. Recognizing that such small areas of land would not provide meaningful parks, Section 7-9-508 of the County of Orange Local Park Code allows the payment of fees to satisfy the parkland requirements. The Project would be required to comply with local park code either through the payment of in-lieu fees and/or the application of any potential local park credits due to the development of on-site private recreational facilities in compliance with the County of Orange Local Park Code. Therefore, impacts related to parks would be less than significant, and no mitigation measures are either required or recommended.

v. (v) *Other public facilities?*

Less than Significant Impact. The County of Orange has not established a specific library service standard and no such standard has been set forth by the American Library Association. The threshold of significance focuses on whether the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. The Project would generate approximately 97 new residents that would require library services. Due to this relatively small residential population anticipated to be generated by the proposed Project, implementation of the Project is not expected to adversely impact library services or trigger the need for construction of new or expanded library facilities. Therefore, the Project would not result in impacts associated with the need for new or physically altered governmental facilities. Additionally, the Project would provide payment of applicable development fees. Therefore, impacts related to other public facilities, including libraries, would be less than significant, and no mitigation measures are either required or recommended.

4.13.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

Collectively, the cumulative projects and the proposed Project would result in increased development that would collectively increase demand for public services provided by OCFA, Orange County Sheriff-Coroner Department, TUSD, OC Parks, and the Orange County Public Library. The Project as well as other future development in the City would be required to pay property taxes that would be used for future facility improvements necessary to ensure adequate levels of service from these public service providers. Therefore, impacts related to the provision of new or physically altered governmental facilities would be less than significant, and no mitigation measures are either required or recommended.

4.13.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to public services were identified; therefore, no mitigation measures are required.

4.13.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to public services would be less than significant, and no mitigation measures are either required or recommended.

4.13.8 REFERENCES

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4.14 RECREATION

4.14.1 EXISTING CONDITIONS

The Project site contains the Tustin Hills Racquet and Pickleball Club, which is a private club with tennis and pickleball courts, a pool, spas, and banquet facilities. The nearest public park is Bent Tree Park located approximately 0.8-mile northeast of the Project site in the Cowan Heights/Lemon Foothills. Bent Tree Park is a 6-acre neighborhood park located directly adjacent to Peters Canyon Regional Park. Located approximately 2 miles northwest of the Project site are Esplanade Park and Holderman Park. Esplanade Park is a 5-acre neighborhood park consisting of a narrow, linear park situated in a residential portion of North Tustin. Holderman Park is a 0.2 acre mini-park located adjacent to Esplanade Park. In addition, the proposed Project is located near several large regional open space areas. Three regional parks are located near the Project site including Peters Canyon Regional Park, Santiago Oaks Regional Park, and Irvine Regional Park (OC Parks 2022).

4.14.2 REGULATORY SETTING

Local

Recreation Element of the County of Orange General Plan

The Recreation Element of the County of Orange General Plan sets forth a comprehensive strategy for the acquisition, development, operation, maintenance, management, and financing of County of Orange recreation facilities which are necessary to meet existing and future recreation needs (County of Orange 2021a).

Local Park Code

The Local Park Code, which is contained in Title 7, Division 9, Article 5 of the County of Orange Code of Ordinances, is the local park implementing mechanism. The Local Park Code requires 2.5 acres of land per 1,000 persons when residential dwelling units are proposed. The code also allows for the payment of in lieu fees or a combined provision of park land and payment of in lieu fees when the community is better served through the provision of park land outside but near the property served. According to the Local Park Implementation Plan Criteria of the General Plan, the County of Orange Local Park Code requires the provision of local park land, or the payment of in lieu fees, or a combination of both as a means of meeting the local park and recreation needs of present and future County of Orange residents (County of Orange 2021b).

4.14.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to recreation if it would:

- 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; or

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

4.14.4 IMPACT ANALYSIS

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

Less than Significant Impact. The Project involves the removal of the Tustin Hills Racquet and Pickleball Club, which is a privately-owned recreational facility that has provided private swim lessons, summer camps, and other recreational activities in the past, in addition to the private tennis and pickleball courts on the Project site. During public review of the Draft Initial Study/Mitigated Negative Declaration (IS/MND) that was prepared for this Project in 2020, comments were received stating that the Project site was an important recreational asset to the community. As noted previously, the Project site is privately-owned. Therefore, although it currently serves as a recreational facility, it is not a public park.

The Project would result in approximately 97 new residents that would incrementally increase the use of surrounding parks and open space areas; however, it should be noted that the Project would include recreational amenities, including a pool and grass areas, that would serve the future residents' demand for recreational facilities. Furthermore, given the distance to existing neighborhood and regional parks, it is unlikely that the residents generated by the Project would visit existing parks enough to physically deteriorate them. Less than significant impacts would result from the Project related to this threshold, and no mitigation measures are either required or recommended.

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

Less Than Significant Impact. The Project includes the development of on-site recreational amenities within the Project site, the impacts of which have been addressed through the impact analysis presented in each of the topical issues in this document where applicable. Also, the Project would be required to comply with local park code either through the payment of in-lieu fees and/or the application of any potential local park credits due to the development of on-site private recreational facilities in compliance with the County of Orange Local Park Code. Any off-site park development that is partially funded through the Project's development fees would incur a separate environmental review pursuant to the California Environmental Quality Act (CEQA). Therefore, impacts related to parks would be less than significant, and no mitigation measures are either required or recommended.

4.14.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

Collectively, the cumulative projects and the proposed Project would result in increased development that would collectively increase demand for parks. All projects would be required to pay development fees to maintain and expand parks as needed. Therefore, less than significant cumulative impacts would result related to this threshold, and no mitigation measures are either required or recommended.

4.14.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to recreation were identified; therefore, no mitigation measures are required.

4.14.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to recreation would be less than significant, and no mitigation measures are either required or recommended.

4.14.8 REFERENCES

OC Parks (2022). Parks Map. Orange County, CA: OC Parks. <https://ocparks.com/map>

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4.15 TRANSPORTATION

4.15.1 EXISTING CONDITIONS

Regional Setting

The site is located on the east side of the intersection of Pavillion Drive and Simon Ranch Road, just north of the City of Tustin in an unincorporated area of Orange County. Regional access to the site is provided via Interstate (I) 5 and State Route (SR) 261 toll road. The I-5 freeway is located approximately two and one-half miles south of the Project site, and the SR-261 slightly less than one mile to the east of the site. Local access is provided by Tustin Ranch Road, Irvine Boulevard, Red Hill Avenue, and Browning Avenue.

Existing Roadway Network

The roadway network near the Project site includes the following roads within approximately 1.25 miles of the Project site, which are expected to be used by vehicles going to and from the Project once it is built:

- Newport Avenue is a five-lane roadway (two travel lanes per direction and a two-way left turn lane) with bike lanes on both sides in the Project vicinity. The roadway is classified as a principal arterial and has a posted speed limit of 45 miles per hour (mph).
- Red Hill Avenue is a two-lane undivided roadway north of La Colina Drive with a striped bike lane on the east side of the roadway. South of La Colina Drive, Red Hill Avenue is a three-lane roadway (one travel lane per direction and a two-way left turn lane) with bike lanes on both sides of the roadway. The roadway is classified as a minor arterial in the Project vicinity and has a posted speed limit of 35 mph north of La Colina Drive and 40 mph south of La Colina Drive.
- Browning Avenue is a two-lane undivided roadway in the Project vicinity. The roadway is classified as a major collector south of Simon Ranch Road and serves as the main major access roadway to/from the Project site. The roadway has a posted speed limit of 25 mph.
- Tustin Ranch Road is a six-lane divided roadway with bike lanes on both sides of the roadway in the Project vicinity. The roadway is classified as a principal arterial and is also classified as a major roadway by the City of Tustin. The posted speed limit in the Project vicinity is 50 mph.
- 17th Street is a four-lane divided roadway west of Newport Avenue with bike lanes on both sides of the roadway. The roadway is classified as a principal arterial and has a posted speed limit of 45 mph. East of Newport Avenue, El Camino Lane is directly across from 17th Street. El Camino Lane is a cul-de-sac residential roadway which serves 11 residential units.
- La Colina Drive is a two-lane undivided roadway with various bike facilities and on-street parking availability through most of the Project vicinity. A short segment of the roadway is divided, between Ranchwood Road and Tustin Ranch Road. The roadway is classified as a minor arterial between Newport Avenue and Red Hill Avenue, as a major collector

between Red Hill Avenue and Browning Avenue, and as a local street between Browning Avenue and Tustin Ranch Road. The posted speed limit is 30 mph.

- Irvine Boulevard is a generally a four-lane divided roadway, including some areas with a striped median and others with a two-way left turn lane. There are some areas with bike lanes on one or both sides of the roadway, and on-street parking is allowed in some areas. The roadway transitions to a six-lane divided roadway near Tustin Ranch Road and to a seven-lane roadway (three travel lanes per direction with a two-way left turn lane) near Red Hill Avenue. The roadway is classified as a principal arterial and has a posted speed limit of 40 mph west of Red Hill Avenue and 45 mph east of Red Hill Avenue.
- Pavillion Drive is a two-lane undivided roadway which provides access to the Project site. The roadway is classified as a local street and has a posted speed limit of 25 mph.
- Simon Ranch Road is a two-lane undivided roadway which serves as a connecting segment between the Project site and Browning Avenue. The roadway is classified as a local street and has a posted speed limit of 25 mph.

Existing Trip Generation

As part of the Project's Traffic Study, a 24-hour count was conducted on the access roadway for the existing Tustin Hills Racquet and Pickleball Club on Thursday, April 15, 2021. Due to COVID-19 restrictions, only the tennis courts were open at the club when the data were collected. A total of 349 daily trips occurred during the count (Psomas 2021).

Existing Transit Service

The Project site is not in close proximity to any fixed bus stops or bus routes. The nearest bus stops are located approximately 1.1-miles southwest of the Project site on Irvine Boulevard and Tustin Ranch Road.

Bicycle and Pedestrian Facilities

There are no formal public bicycle or pedestrian facilities within the Project site. The local roads surrounding the Project site do not contain sidewalks or bike lanes. Some limited bike lanes exist on vicinity roadways, as noted above.

4.15.2 REGULATORY SETTING

State

As the owner and operator of the State Highway System, the State of California Department of Transportation (Caltrans) implements established State planning priorities in all functional plans, programs, and activities. Caltrans has the responsibility to coordinate and consult with local jurisdictions when proposed local land use planning and development may impact State highway facilities. Pursuant to Section 21092.4 of the Public Resources Code, for projects of statewide, regional, or area-wide significance, the lead agency shall consult with transportation planning agencies and public agencies that have transportation facilities which could be affected

by the Project. The proposed Project will not affect any Caltrans facilities and is not considered a project of Statewide, regional, or area-wide significance.

Senate Bill 743

With the adoption of Senate Bill (SB) 743, the State of California changed the method of traffic analysis required through the California Environmental Quality Act (CEQA) for publicly- and privately-initiated projects. The law changed the way local jurisdictions analyze transportation impacts from development projects and identify mitigation measures to reduce those impacts. SB 743 became effective on July 1, 2020. The previous practice of evaluating traffic transportation impacts used on-road congestion or level of service (LOS). SB 743 requires the amount of driving and length of trips — as measured by vehicle miles traveled (VMT) — be used to assess transportation impacts on the environment for CEQA review. These impacts will be reduced or “mitigated” by options such as increasing transit, providing for active transportation such as walking and biking, and participating in mitigation banks. All jurisdictions have the option to tailor requirements to their unique communities.

Local

County of Orange General Plan – Transportation Element

The Transportation Element identifies goals, objectives, policies, and implementation programs that affect the transportation system and provide guidance for future transportation planning efforts within the unincorporated areas. The Transportation Element contains a circulation plan, bikeways plan, and scenic highway plan as well as goals and objectives related to the County of Orange transportation system.

2020 Updated Transportation Implementation Manual

The 2020 Updated Transportation Implementation Manual (Manual) was adopted by the Board of Supervisors in 2020, which establishes the procedures and local parameters for the implementation of the County of Orange’s transportation analysis and VMT methodologies (County of Orange 2020). The Manual is intended to clarify the intent of the “Traffic Level of Service Policies” of the Growth Management (GM) Element. The manual describes how the “Traffic Level of Service Policies” of the GM Element are to be implemented on a site or project specific basis. It includes a listing of projects which are exempt from GM Element traffic requirements, acceptable traffic analysis methodologies, minimum requirements of GM traffic reports, and the traffic monitoring surveys the County of Orange will conduct to determine system performance.

4.15.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, the Project would result in a significant transportation impact if the Project would:

- a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;

- b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- d) Result in inadequate emergency access.

4.15.4 IMPACT ANALYSIS

- a) *Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Less than Significant Impact. The Project's consistency with programs, plans, ordinances, and policies related to the circulation system is evaluated below. There are no transit, bicycle, or pedestrian programs, plans, ordinances, or policies that are directly applicable to the Project.

County of Orange

General Plan – Transportation Element:

The Transportation Element of the County of Orange General Plan identifies goals, objectives, policies, and implementation programs that affect the transportation system and provide guidance for future transportation planning efforts within the unincorporated areas. The Transportation Element contains a circulation plan, bikeways plan, and scenic highway plan as well as goals and objectives related to the County of Orange transportation system. The Project is not located near nor would it impact any roads, bikeways, or scenic highways covered by the Transportation Element. Therefore, the Project would not directly conflict with the Transportation Element of the County of Orange General Plan.

2020 Updated Transportation Implementation Manual

The 2020 Updated Transportation Implementation Manual was adopted by the Board of Supervisors in November 2020, which establishes the procedures and local parameters for the implementation of the County of Orange's VMT policy (County of Orange 2020). A Traffic Analysis (refer to Appendix K) was prepared for the Project, consistent with the requirements of the 2020 Updated Transportation Implementation Manual (Psomas 2021). As noted below in response to threshold b, the Project was found to have a less than significant impact related to VMT.

Bicycle and Pedestrian Facilities

During the public review of the Draft Initial Study/Mitigated Negative Declaration (IS/MND) that was circulated for the Project in 2020, comments were received stating that the Project would affect pedestrian access between neighborhoods through the removal of a pedestrian pathway that currently exists through the Project site between Racquet Hill and Pavillion Drive. The commenters were referring to an access easement that exists adjacent to the Project site, extending between two residential lots along Racquet Hill Lane, which lead to the private parking lot within the Project site. The comments received on this topic are acknowledged; however, no access easement exists through the Project site itself. Furthermore, there are no formal

pedestrian facilities within the Project site. The access easement leads to a set of stairs on a sparsely vegetated dirt slope and the parking lot within the private Project site. Therefore, although some individuals have used this informal path as a part of their exercise routines in the past, it is not a public road, path, or trail nor is there any easement or other legal instrument requiring that it be maintained. Residents and pedestrians from Racquet Hill Lane would still be able to access Pavillion Drive/Simon Ranch Road by walking along Skyline Drive when the Project is implemented.

Conclusion

The Project consists of a residential development within a previously developed Project site. The streets within the Project site would be two-way, private (i.e., non-dedicated) streets that have been designed to conform to County of Orange standards design plans. Also, the Project's off-street parking has been designed consistent with Section 7-9-145 of the County of Orange Code of Ordinances (County of Orange 2021). Therefore, given that the Project would not conflict with any transportation-related programs, plans, ordinances, or policies and because the Project streets are designed in accordance with requirements from the County of Orange Code of Ordinance, the Project would result in less than significant impacts relative to this threshold, and no mitigation measures are either required or recommended.

b) Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less than Significant Impact. To determine if a detailed VMT analysis is required, the screening criteria in Appendix B of the County of Orange's 2020 Updated Transportation Implementation Manual (Manual) were reviewed, which is entitled Guidelines for Evaluating Vehicle Miles Traveled Under CEQA (County of Orange 2020, included as Appendix N of this EIR). Per the Manual, if a project is expected to generate fewer than 500 daily trips, it is assumed to have a less than significant impact on transportation and circulation and would be exempt from having to prepare a VMT analysis.

As detailed in the Traffic Analysis, using trip generation rates maintained by the Institute of Transportation Engineers, the Project is expected to generate 277 daily trips, which is well below the threshold requiring a VMT analysis (Psomas 2021). When considering the existing uses on site which would be replaced, the Project will result in an overall reduction in the number of daily trips. Therefore, the Project is assumed to have a less than significant VMT impact, and no mitigation measures are either required or recommended.

c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact. All project circulation improvements have been designed and constructed to City standards; therefore, the Project would not result in design hazards. Primary vehicular access to the proposed Project would be provided by an entry driveway off Pavillion Drive, which is consistent with the current configuration of the entry into the existing use. In addition, the location of driveway access points would comply with OC Public Works roadway standards for adequate sight distance (**SC TRA-1**) which requires compliance with County of

Orange sight distance requirements in a manner meeting the approval of the Manager, OC Infrastructure/Traffic Engineering. With implementation of **SC TRA-1**, the Project would not increase hazards due to an incompatible use, and no mitigation measures are either required or recommended.

d) Would the Project result in inadequate emergency access?

Less than Significant Impact. The Project's entry driveway into the site would be located at the same location as it is in existing conditions. Additionally, the internal circulation and the location of driveway access points have been designed to comply with all applicable design and safety standards required by adopted fire codes, safety codes, and building codes. Additionally, the Project would not increase delays on roadways analyzed in the Traffic Analysis; therefore, the Project would not result in inadequate emergency access, and the Project impact is considered less than significant (Psomas 2021).

4.15.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0. These cumulative projects would generally increase density of housing and other uses, that could increase VMT and could affect other aspects of the transportation system, including temporary and permanent impacts to LOS. These cumulative projects would be required to conduct their own transportation studies to evaluate potential impacts, and to identify mitigation if needed.

As discussed above, the Project would result in fewer daily trips than the existing uses on the Project site. Furthermore, as detailed in the Project's Traffic Analysis, intersection operations would be acceptable in the future with the Project, while also accounting for cumulative projects and ambient growth (Psomas 2021, Appendix K). Consistent with the County of Orange's 2020 Updated Transportation Implementation Manual, the Project would not result in a significant VMT impact. Finally, the Project would not impact public pedestrian, bicycle, or transit facilities. In fact, the Project would add sidewalks for pedestrians on the roads within the development. Therefore, the Project does not have the potential to contribute cumulatively to transportation -related impacts.

4.15.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

SC TRA-1 County Standard Condition of Approval T10:

Prior to the issuance of any grading permits, the applicant shall demonstrate adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, OC Infrastructure/Traffic Engineering. The applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other encroachments from the limited use area in a manner meeting the approval of the Manager, Building and Safety.

Mitigation Measures

No significant impacts pertaining to aesthetics were identified; therefore, no mitigation measures are required.

4.15.7 SIGNIFICANCE AFTER MITIGATION

There would be no Project impacts related to transportation, and no mitigation measures are either required or recommended.

4.15.8 REFERENCES

Orange, County of. 2021 (October 7, last accessed). Orange County, California – Code of Ordinances. Santa Ana, CA: County of Orange.
https://library.municode.com/ca/orange_county/codes/code_of_ordinances

———. 2020 Updated Transportation Implementation Manual. Santa Ana, CA: County of Orange.
<https://ocds.ocpublicworks.com/sites/ocpwocds/files/2020-12/Transportation%20Implementation%20Manual%20-%202020.pdf>

Psomas. 2021 (September 10). Traffic Analysis Ranch Hills, Orange County, CA. Santa Ana, CA: Psomas.

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4.16 TRIBAL CULTURAL RESOURCES

4.16.1 EXISTING CONDITIONS

South Central Coastal Information Center Record Search

An evaluation of cultural resources and human remains is provided in Section 4.4. As noted in more detail in that section, a cultural resource record search and literature review was conducted at the California Historical Resources Information System (CHRIS), which maintains records and literature regarding cultural resources within California. The South Central Coastal Informational Center (SCCIC) is a designated branch of the CHRIS and houses records recorded in San Bernardino, Los Angeles, Orange, and Ventura Counties. The CHRIS office for Orange County is located at the SCCIC at California State University, Fullerton. The literature review at the SCCIC revealed that 22 cultural resources studies have been undertaken within ½-mile of the Project site; however, none of these studies included a portion of the Project site. The SCCIC records search also identified four archaeological sites within a half-mile radius of the Project site. The presence of several archaeological sites in the immediate vicinity of the Project site is an indicator that the region has the potential to provide information on past human activities within this area. Of the four sites, three are solely prehistoric, comprising habitation debris (fire affected rocks) and lithic (stone) scatters. The lithic scatters consisted mostly of debitage (lithic waste flakes) and stone tools, including ground stone fragments, blades, and choppers/hammerstones. One obsidian (volcanic glass) retouched lithic stone tool was also identified at one of the sites suggesting imported material was brought to the region from other parts of California. The remaining archaeological site is described as a multicomponent rock art site dating to both the prehistoric and historic eras. None of the archaeological sites are located within the Project site.

4.16.2 REGULATORY SETTING

State

California Register of Historical Resources

The California Register of Historical Resources (CRHR) program encourages public recognition and protection of resources of architectural, historical, archaeological, tribal cultural resources, and cultural significance; identifies historical resources for State and local planning purposes; determines eligibility for State historic preservation grant funding; and affords certain protections under the California Environmental Quality Act (CEQA). The criteria established for eligibility for the CRHR are directly comparable to the national criteria established for the National Register of Historic Places (NRHP).

In order to be eligible for listing in the CRHR, a building, object, or structure must satisfy at least one of the following four criteria:

- 1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.

- 2) It is associated with the lives of persons important to local, California, or national history.
- 3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
- 4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Archaeologists and Tribal Representatives assess sites based on all four of the above criteria but usually focus on the fourth criterion provided above. Historical resources eligible for listing in the CRHR must also retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. For the purposes of eligibility for the CRHR, integrity is defined as “the authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance”. This general definition is generally strengthened by the more specific definition offered by the NRHP—the criteria and guidelines on which the CRHR criteria and guidelines are based upon.

Tribal Cultural Resources/Assembly Bill 52

In September 2014, Governor Brown signed AB 52 (Chapter 532, Statutes of 2014), which creates a new category of environmental resources that must be considered under CEQA: “tribal cultural resources.” The legislation imposes new requirements for offering to consult with California Native American tribes regarding projects that may affect a tribal cultural resource, emphasizes a broad definition of what may be considered to be a tribal cultural resource, and includes a list of recommended mitigation measures (MMs).

Recognizing that tribes may have expertise regarding their tribal history and practices, AB 52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. MMs agreed upon during consultation must be recommended for inclusion in the environmental document.

AB 52 became effective on July 1, 2015, and requires that the lead agency provide project notifications to California Native American tribes on the Native American Heritage Council (NAHC) Tribal Consultation list that request notification in writing prior to a lead agency’s release of a Notice of Preparation (NOP) for an Environmental Impact Report (EIR), a Mitigated Negative Declaration, or Negative Declaration. Once Native American tribes receive a project notification, they have 30 days to respond as to whether they wish to initiate consultation regarding the project and specifically consultation regarding mitigation for any potential project impacts.

Native American Historic Resource Protection Act

Established in 2002, the Native American Historic Resource Protection Act, establishes a misdemeanor for unlawfully and maliciously excavating upon, removing, destroying, injuring, or defacing a Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the CRHR. The focus of this legislation was to provide additional legal protection for Native American historical and cultural sites, art, and other cultural artifacts found at those sites. The Act also encourages collaborative relationships for the protection of Native American

cultural resources between Native Americans and landowners. Funding and other State assistance should be encouraged for support of voluntary agreements to conserve, maintain, and provide physical access for Native Americans to these cultural resources.

California Health and Safety Code (Sections 7050.5, 7051, and 7054)

These sections of the California Health and Safety Code collectively address the illegality of interference with human burial remains (except as allowed under applicable sections of the [California Public Resources Code (PRC)]. These sections also address the disposition of Native American burials in archaeological sites and protect such remains from disturbance, vandalism, or inadvertent destruction. Procedures to be implemented are established for (1) the discovery of Native American skeletal remains during construction of a project; (2) the treatment of the remains prior to, during, and after evaluation; and (3) reburial.

Section 7050.5 of the California Health and Safety Code specifically provides for the disposition of accidentally discovered human remains. Section 7050.5 states that if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the county coroner has determined the appropriate treatment and disposition of the human remains.

California Public Resources Code (Section 5097.98)

Section 5097.98 of the PRC states that, if remains are determined by the Coroner to be of Native American origin, the Coroner must notify the NAHC within 24 hours. When the NAHC receives this notification from a county coroner, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land or his or her authorized representative, inspect the site of the remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. This regulation also requires that, upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations and all reasonable options regarding their preferences for treatment. This section of the PRC has been incorporated into Section 15064.5(e) of the CEQA Guidelines.

4.16.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would result in significant impacts related to tribal cultural resources if it was:

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k), or
- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource

Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.16.4 IMPACT ANALYSIS

- a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?*

Less than Significant Impact. For purposes of impact analysis, a tribal cultural resource is considered a site, feature, place, cultural landscape, sacred place, or object which is of cultural value to a California Native American Tribe and is either eligible for the CRHR¹ or a local register.

Psomas submitted a request to the NAHC for a Sacred Lands File search and a list of tribal representatives for AB 52 consultation on November 1, 2018. The NAHC conducted a Sacred Lands File search for the Project site. Results were received on November 15, 2018. The search failed to identify any sacred places or objects with cultural value to a California Native American tribe on the Project site.

As discussed in more detail in Section 4.4, Cultural Resources of this EIR, based on a records search, there are no resources on the Project site or in nearby vicinity that are currently listed on the CRHR. Therefore, impacts related to this threshold would be less than significant, and no mitigation measures are either required or recommended.

- b) *Would the project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, and that is A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Less than Significant Impact. Consistent with requirements of AB 52, on April 10, 2019, the County sent letters to tribes that have provided written requests to be notified of projects in unincorporated areas of Orange County. Letters were sent to the following tribal organizations:

- Gabrieliño Band of Mission Indians – Kizh Nation;
- Juaneño Band of Mission Indians – Acjachemen Nation;

¹ Section 5020.1 of the Public Resources Code established the California Register of Historic Resources, as “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.”

- San Gabriel Band of Mission Indians; and
- Soboba Band of Luiseño Indians.

Only the Gabrieleño Band of Mission Indians – Kizh Nation requested consultation. Consultation with the Gabrieleño Band of Mission Indians – Kizh Nation and staff from OCPW, Development Services/Planning occurred on June 20, 2019. During the consultation, the Gabrieleño Band of Mission Indians – Kizh Nation did not identify the presence of tribal cultural resources on the Project site and requested additional information pertaining to the artificial fill located on the Project site. OCPW, Development Services/Planning provided a written response to the requested information. Consultation with the Gabrieleño Band of Mission Indians – Kizh Nation was concluded on August 8, 2019, and written correspondence was provided. No further correspondence has been received regarding the consultation and no response to the Notice of Preparation was received.

On August 2, 2021, the Juaneño Band of Mission Indians – Acjachemen Nation responded to the Notice of Preparation and requested additional information. This additional information was provided in writing on August 26, 2021. The Tribe acknowledged receipt and requested the opportunity to review the Draft EIR.

Should evidence of human remains be discovered during project construction, the Project would comply with **RR CUL-1** which includes mandatory compliance with the provisions of State Health and Safety Code Section 7050.5.

Although consultation did not reveal the existence of known tribal cultural resources on the Project site, unknown tribal cultural resources could be unexpectedly discovered during construction activities. The Project would comply with **RR CUL-1** and would implement **SC TCR-1**, which would ensure that Project impacts are less than significant should tribal cultural resources be discovered during construction.

4.16.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related cumulative projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0. The cumulative projects are generally similar to the proposed Project, involving excavation that could potentially encounter and impact tribal cultural resources.

There are no tribal cultural resources listed or determined eligible for listing, on the national, State, or local register of historical resources on the Project site. However, should buried resources be identified, ground disturbance within native sediment could lead to the accelerated degradation of previously unknown tribal cultural resources. All projects are required to abide by the requirements of **RR CUL-1**, which requires that work be stopped and coroner consulted if suspected human remains are identified. All projects within County of Orange jurisdiction would be required to implement **SC CUL-1** requiring the involvement of an archaeologist in project construction. For cumulative projects with archaeological and tribal cultural sensitivity, it is anticipated that the requirements for archaeological monitoring, procedures for stopping work and evaluating finds, and consultation with the tribes during grading, if needed, would be required by the applicable lead

agency. Therefore, cumulative impacts related to tribal cultural resources are anticipated to be less than significant.

4.16.6 MITIGATION PROGRAM

Regulatory Requirements

RR CUL-1 If human remains are encountered during excavation activities, all work shall halt in the vicinity of the remains and the County Coroner shall be notified (California Public Resources Code, Section 5097.98). The Coroner will determine whether the remains are of forensic interest. If the Coroner, with the aid of a County-certified archaeologist, determines that the remains are prehistoric, she/he will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD shall make his/her recommendation within 48 hours of being granted access to the site. If feasible, the MLD's recommendation should be followed and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (California Health and Safety Code, Section 7050.5). If the Applicant rejects the MLD's recommendations, the Applicant shall rebury the remains with appropriate dignity on the Project site in a location that will not be subject to further subsurface disturbance (California Public Resources Code, Section 5097.98).

County of Orange Standard Conditions of Approval

SC TCR-1 County Standard Condition of Approval TCR-1

If unanticipated archaeological resources or deposits are discovered during earth-moving activities, OCPW will implement the following measures. All work will halt within a 50-foot radius of the discovery. The Applicant will have a qualified professional archaeologist assess the significance of the find. If the resources are Native American in origin, the County shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCPW. Work will not continue within the no-work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the CRHR. If a potentially eligible resource is encountered, then the archaeologist and OCPW, as lead agency, in consultation with Gabrieleño Band of Mission Indians – Kizh Nation, will arrange for either: (1) avoidance of the resource, if possible; or (2) test excavations to evaluate eligibility, and if eligible, an attempt to resolve adverse effects to determine appropriate mitigation. The assessment of eligibility will be formally documented in writing as verification that the provisions in CEQA for managing unanticipated discoveries and PRC Section 5024 have been met.

4.16.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to tribal cultural resources would be less than significant, and no mitigation measures are required or recommended.

4.16.8 REFERENCES

See Section 4.4.8 for related references.

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4.17 UTILITIES AND SERVICE SYSTEMS

4.17.1 EXISTING CONDITIONS

Water

Water services are provided to the Project site by the City of Tustin. The City is a retail water supplier that provides water to its residents and other customers using imported potable water from Municipal Water District of Orange County (MWDOC), obtained through East Orange County Water District (EOCWD), and local groundwater from the Orange County Groundwater Basin (OC Basin), which is managed by the Orange County Water District (OCWD). According to the City's 2020 Urban Water Management Plan, water use within the City's service area has been relatively stable in the past decade with an annual average of 10,931 acre-feet (AF) for potable use. There is currently no recycled water use within the City's service area. In Fiscal Year 2019–20, the City's water use was 10,447 AF of potable water (groundwater and imported). In FY 2019–20, the City's water supplies consisted of 96 percent groundwater and 4 percent imported water (City of Tustin 2021).

Wastewater

The EOCWD provides wastewater service to the Project site (OCSAN 2021). EOCWD is required to comply with the State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, entitled "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (Order), adopted May 2, 2006 (EOCWD 2017). The Santa Ana Regional Water Quality Control Board (RWQCB) is the applicable RWQCB for the unincorporated areas of Orange County, including the Project site.

Storm Water Drainage

The Project site is graded and developed as the Tustin Hills Racquet and Pickleball Club. The surface of the land slopes generally down to the southeast. The lowest point on the Project site is near the most southerly corner where stormwater runoff leaves the site in a concrete drainage ditch. The highpoint on the Project site is near the most westerly corner of the Project site. The Project site is currently terraced for the prior construction of the tennis and pickleball courts, clubhouse, and supporting facilities. The average slope of the Project site is approximately 7.5 percent, dropping 40 feet over a 540-foot distance. The storm water runoff from the Project site currently drains in a southerly direction by surface flows along a concrete drainage ditch and flows approximately 200 feet to a City of Tustin storm drain system, eventually draining to the San Diego Creek and the Upper Newport Bay located approximately 8.5 miles southwest of the Project site (Hamers & Associates 2020).

Electricity, Natural Gas, and Telecommunications

Southern California Edison (SCE) currently provides electricity to the unincorporated areas of Orange County, including the Project site (CEC 2020a). The Southern California Gas Company (SCGC) currently provides natural gas service to the unincorporated areas of Orange County, including the Project site (CEC 2020b). AT&T currently provides telecommunications service to the unincorporated areas of Orange County, including the Project site (AT&T 2021). There are

existing service connections for electricity, natural gas, and telecommunications throughout the site, serving the existing development.

Landfills

The Frank R. Bowerman Landfill, which is owned and operated by OC Waste & Recycling and is the closest landfill to the Project site. This landfill accepts a maximum of 11,500 tons per day (tpd) and an 8,500 tpd annual average, with a remaining capacity of 205 million cubic yards as of February 2008. Closure of the landfill is anticipated in 2053 (CalRecycle 2021a).

4.17.2 REGULATORY SETTING

State

California Water Plan

The California Water Plan is prepared by the California Department of Water Resources (DWR), most recently updated in 2018 (DWR 2018). The plan provides a framework for water managers, legislators, tribes, agencies, businesses, academia, stakeholders, and the public to consider options and make decisions regarding California's water future. The California Water Plan, which is updated every 5 years, presents basic data and information on California's water resources, including water supply evaluations and assessments of agricultural, urban, and environmental water uses, to quantify the gap between water supplies and uses. The California Water Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs. The California Water Plan provides resource management strategies and recommendations to strengthen integrated regional water management. The resource management strategies help regions meet future demands and sustain the environment, resources, and economy, involve communities in decision-making, and meet various goals. A resource management strategy is a project, program, or policy that helps local agencies and governments manage their water and related resources. These strategies can reduce water demand, improve operational efficiency, increase water supply, improve water quality, practice resource stewardship, and improve flood management. Additionally, the California Water Plan includes a finance plan that identifies critical priorities for state investment in integrated water management activities.

California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the SWRCB consider and act on all applications for permits to appropriate waters. Division 6 of the California Water Code controls conservation, development, and utilization of the State water resources, whereas Division 7 addresses water quality protection and management.

Urban Water Management Planning Act

The California Urban Water Management Planning Act (California Water Code, Sections 10610–10656) requires urban water suppliers that provide over 3,000 AF of water annually or serve more than 3,000 or more connections to analyze the reliability of their water sources over a 20-year planning horizon. The Act requires urban water suppliers to prepare and update Urban Water Management Plans (UWMPs) that analyze the availability of water supplies to meet demands during normal, single-dry, and multiple-dry years, to encourage water conservation programs and create long-term planning obligations.

Senate Bill 606 and Assembly Bill 1668

In 2018, two laws were passed that built on California’s ongoing efforts to make water conservation a way of life. They emphasized efficiency and stretching water supplies in cities and farms. The laws were jointly designed to overhaul California’s approach to conserving water. The measures impose new and expanded requirements on State water agencies and local water supplies, and provide for greater state oversight of local water suppliers’ water use, even in non-drought years. Assembly Bill (AB) 1668 and Senate Bill (SB) 606 require the State Water Resources Control Board, in coordination with the Department of Water Resources, to establish long-term urban water use efficiency standards by June 30, 2022. Those standards will include components for indoor residential use, outdoor residential use, water losses, and other uses.

Regarding indoor residential use, the new laws set a standard of 55 gallons per-person, per-day through January 1, 2025. After that date, the amount will be incrementally reduced over time. For the development of outdoor residential use standards, the bills require DWR to conduct studies of landscaping and climate throughout the State by 2021. DWR will then provide the resulting data to SWRCB and local water suppliers for development of urban water use objectives. In addition, the bills will require local water suppliers to calculate and comply with their water use objectives and report those objectives and actual use to DWR. New five-year drought risk assessments and water shortage contingency plans must also be incorporated into Urban Water Management Plans.

Waste Discharge Requirements Program

The Waste Discharge Requirements (WDR) Program is administered by the State and Regional Water Quality Control Boards. The WDR Program regulates all discharges of waste to land. Waste discharge requirements adopted under the WDR Program protect surface water by either prohibiting discharge of a pollutant to waters of the U.S. or prescribing requirements for discharge to surface waters that are not waters of the U.S., and they protect groundwater by prescribing waste containment, treatment, and control requirements. The WDR program is a mandated program issuing WDRs to regulate the discharge of municipal, industrial, commercial, and other wastes to land that will or have the potential to affect groundwater. Section 13260(a) of the California Water Code requires that any person discharging waste or proposing to discharge waste within any region, other than to a community wastewater system, that could affect the quality of the waters of the State, must file a report of waste discharge. All waste discharge requirements issued by the Regional Water Board include self-monitoring programs requiring the waste discharger to collect pertinent water quality data and to submit it to the RWQCB for evaluation of compliance with waste discharge requirements. WDRs are written for

a specific discharger (individual WDRs) or to regulate a similar group of dischargers (general WDRs). In recent years, the Program staff has also used conditional waivers, which may be used to regulate those discharges that have the lowest threat to water quality.

Construction and Demolition Waste Diversion Requirements

To achieve the waste diversion requirements set forth by the California Integrated Waste Management Act and CALGREEN, Resolution No. 16-118 was adopted by the County of Orange Board of Supervisors on December 13, 2016, which contains the County of Orange's policies and program related to the diversion of construction and demolition waste. All covered projects, including the proposed Project, are required to recycle and/or salvage for reuse a minimum of 65% of the non-hazardous total construction and demolition waste (CBSC 2018). Additionally, 100% of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. Resolution No. 16-118 delegates the responsibility for implementation of this program to OC Waste & Recycling. Receipts are provided by the permit applicant for each project to OC Waste & Recycling to document which materials were salvaged for reuse or recycling. Alternatively, the materials can be disposed of at an approved recycling facility or processed through collection by the County of Orange's Franchised Waste Haulers.

California Building Code

The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen code, is promulgated under the California Code of Regulations, Title 24 (Parts 1 through 12) and is administered by the California Building Standards Commission (CBSC 2018). The national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by State agencies and local governing bodies. The California Building Code establishes general standards for the design and construction of buildings, including provisions related to energy and water efficiency and conservation; material conservation and resource efficiency; and environmental quality. Mandatory measures include storm water pollution prevention, water conservation, and recycling and/or salvage of at least 50 percent of nonhazardous construction and demolition wastes. The County of Orange Code of Ordinances adopts the CALGreen Code by reference, with specific amendments.

Local

County of Orange General Plan

The County of Orange General Plan – Resources Element contains goals and policies pertaining to energy and water conservation (County of Orange 2021a).

- **Energy Resources Component, Goal 1:** Maximize the conservation and wise use of energy resources in all residences, businesses, public institutions, and industries in Orange County.
 - **Policy 3, Energy Conservation:** To encourage and actively support the utilization of energy conservation measures in all new and existing structures in the County.
- **Water Resources Component, Goal 1:** Ensure an adequate dependable supply of water of acceptable quality for all reasonable uses.

- **Policy 1, Water Supply:** To ensure the adequacy of water supply necessary to serve existing and future development as defined by the General Plan.
- **Policy 5, Water Quality:** Protect and improve water quality through continued management, enforcement, and reporting requirements. Encourage an integrated water resources approach for stormwater management that considers water supply, water quality, flood control, open space, and native habitats. Promote coordination between the County, cities, and other stakeholders in the identification and implementation of watershed protection and Low Impact Development (LID) principles. Consider implementation of LID principles to conserve natural features (trees, wetlands, streams, etc.), hydrology, drainage patterns, topography, and soils. Encourage the creation, restoration, and preservation of riparian corridors, wetlands, and buffer zones. Continue to educate the public about protecting water resources.

The Public Service and Facilities Element of the County's General Plan contains goals and policies pertaining to the protection and use of local surface water, groundwater, and watershed resources (County of Orange 2021a).

- **Waste Management, Goal 2:** Protect water, air, and habitat in the management of the Orange County disposal system.

City of Tustin General Plan

The City of Tustin General Plan contains goals and policies pertaining to water conservation, which are applicable to the Project since the Project would obtain water from the City of Tustin (City of Tustin 2018).

- **Housing Element – Goal 6:** Ensure that new housing is sensitive to the existing natural and built environment.
 - Policy 6.4: Promote water efficient landscapes, efficient irrigation, and use of permeable paving materials.
- **Conservation/Open Space/Recreation Element – Goal 5:** Protect water quality and conserve water supply.
 - Policy 5.3: Conserve imported water by requiring water conservation techniques, water conserving appliances, and drought-resistant landscaping.

4.17.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria, included for analysis in this EIR, are based on Appendix G of the CEQA Guidelines, and will be used to determine the significance of potential impacts to utilities and service systems. Impacts related to utilities and service systems would be significant if the project would:

- a) require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

- b) have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- c) result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- d) generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- e) comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

4.17.4 IMPACT ANALYSIS

- a) *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Less Than Significant Impact.

Water

Water service is provided to the Project site by the City of Tustin. The Project would generate an increase in water demand through the addition of approximately 37 residential units and an anticipated population increase of 97 people, in excess of the water demands of the existing Tustin Hills Racquet and Pickleball Club, which occupies the Project site. The Project would include the construction of a new 8-inch water main, which would connect to the existing potable water mainline within Simon Ranch Road near the Project's existing driveway. A 12-inch water main would be installed connecting from the northern Project boundary to the existing water main within Racquet Hill. The Project would also include an alternate water connection to an existing 6 inch water main north of the Project site. Finally, the Project would include the vacation of a 10-foot wide easement for the benefit of Tustin Waterworks for pipelines, as shown in Exhibit 3-5, Preliminary Grading Plan. The physical impacts of these water-related improvements are evaluated in the topical sections, where applicable in this EIR as part of the Project, and no other relocation or expansion of water infrastructure is anticipated. The size of the Project is below the thresholds that require preparation of a water supply assessment.¹ Furthermore, in September 2019, a will serve letter was received by the Project Applicant confirming that the City of Tustin is willing to provide water service to the Project (City of Tustin 2019, Appendix M). The City's letter also indicated that the Project would be required to incorporate a looped water system, which was subsequently included in the Project's design.

¹ SB 610 and SB 221 require that a water supply assessment be done for residential developments of more than 500 dwelling units.

Wastewater

The EOCWD provides sanitary wastewater service to the Project site (OCSAN 2021). The Project would generate an increase in wastewater generation through the addition of 37 residential units and an anticipated population increase of 97 people. The Project site currently contains the Tustin Hills Racquet and Pickleball Club, which generates wastewater flows during existing conditions, which would be replaced by the Project. The utility improvements would include the construction of a new 8-inch wastewater line, which would connect to an existing private wastewater line that leads from the Project site to the south in an existing wastewater easement and then connects to the wastewater main within Pavillion Drive approximately 600 feet south of Simon Ranch Road. Wastewater flows are ultimately conveyed to an Irvine Ranch Water District (IRWD) wastewater line on Lambert. The impacts of these wastewater-related improvements are disclosed in this EIR as part of the Project, and no other relocation or expansion of wastewater infrastructure is anticipated. Furthermore, in January 2019, a Service Commitment Letter was received from EOCWD by the Project Applicant confirming that the Project is eligible for wastewater service (EOCWD 2019, Appendix M). In January 2021, a Service Provider Acknowledgment Letter was received by the Project Applicant confirming that the Project is inside the District for wholesale water service any may be eligible for service, which EOCWD would further confirm during the plan check process. In addition, in February 2021, IRWD confirmed wastewater collection capacity for the Project at the proposed wastewater connection point near the intersection of Lambert and Cheney (IRWD 2021, Appendix M).

Storm Water Drainage

A private on-site storm drain system is proposed to convey storm water flows to the southerly corner of the Project site where it would then be conveyed to an existing concrete drainage ditch. An underground infiltration trench along with other best management practices has been incorporated into the Project to treat storm water runoff before it is discharged off-site. Implementation of the Project would decrease the amount of impervious area on the Project site by approximately 7.7 percent. On-site hydro-modification controls have been specified and would be implemented such that the volumes and time of concentration of stormwater runoff for the post-development condition are reduced from the predevelopment condition for a two-year peak flow rate. As such, with implementation of the Project, the runoff volume would decrease by over 11 percent (see Appendix J, Preliminary Priority Project WQMP). Therefore, the storm water runoff from the Project site would not exceed the capacity of the storm drain system, and no infrastructure improvements would be required beyond the installation of on-site storm drain facilities.

Electricity

Electrical service would be provided to the Project site in accordance with SCE's policies and extension rules on file with the California Public Utilities Commission. The Project includes the installation of electrical distributions lines onsite and would be responsible to connect to existing distribution lines offsite. The Project includes trenching between the Project site's southwestern boundary and the electrical point of connection within Simon Ranch Road. The impacts of these electrical improvements are disclosed in this EIR as part of the Project, and no other relocation or expansion of electrical infrastructure is anticipated.

Natural Gas

Natural gas service would be provided in accordance with SCGC's policies and extension rules on file with the California Public Utilities Commission. The Project includes the installation of natural gas distribution lines onsite and would connect to the existing gas main line located just southwest of the Project site within Simon Ranch Road. The impacts of these natural gas improvements are disclosed in this EIR as part of the Project, and no other relocation or expansion of natural gas infrastructure is anticipated.

Telecommunications

The Project would include the installation of telecommunications conduits onsite and would connect to an existing point-of-connection located just southwest of the Project site within Simon Ranch Road. The impacts of these improvements are disclosed in this EIR as part of the Project, and no other relocation or expansion of telecommunications infrastructure is anticipated to accommodate the Project.

Conclusion

The impacts of utility connections that discussed above are disclosed in this EIR as part of the Project, and no other relocation or expansion of natural gas infrastructure is anticipated. Less than significant impacts would result related to these thresholds, and no mitigation measures are either required or recommended.

- b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry year?***

Less Than Significant Impact. The City of Tustin's UWMP provides detailed information about the City's water demand, supply, and reliability. As described in the UWMP, the City of Tustin has the supply needed to meet the existing and future demands of its customers through the year 2045 (City of Tustin 2020). Water supply for the City of Tustin Water Facilities receives approximately 96 percent of its water from underlying groundwater. The remaining four percent is imported water. The City of Tustin obtains its imported supply from the Municipal Water District of Orange County, which is imported from Metropolitan Water District of Southern California. The service area covered by the City of Tustin had a total population of 66,600 in 2020.

In fiscal year 2019–20, approximately 74.8 percent of the City of Tustin service area's water demand is residential (City of Tustin 2020). The water use within the City's service area has been relatively stable in the past decade with an annual average of 10,931 AF of potable use each year. This demand is met through locally pumped groundwater and purchased imported water from MWDOC. The City's UWMP assumes that with conservation efforts, water demand is likely to decrease 3.5 percent between 2020 and 2025. In the longer term, water demand is projected to further decrease by an additional 1.8 percent from 2025 through 2045 (City of Tustin 2020). Actual water supplies for 2020 totaled 10,447 AF of water (City of Tustin 2020).

The Project site is currently developed as the Tustin Hills Racquet and Pickleball Club, which is already a source of water consumption and use. The Project would be required to comply with Sections 4.303 and 4.304 of the CALGreen Code, which require indoor and outdoor water

conservation measures such as low flush toilets, aerators on sinks and shower heads, other water-efficient appliances, and water-efficient automatic irrigation system controllers (CBSC 2018). The Project is expected to increase the demand for water supply once the residences are constructed above existing conditions. It is anticipated that the Project at operation will have an average daily water demand of 9,215² or 10.32 AF per year. This increase in demand related to the Project represents less than 0.001 percent of the City's 10,447 AF of water supply, without accounting for existing land uses that would be displaced by the Project.

As described in Section 3.5.2 of the UWMP, the growth projections contained in the City's UWMP are based on the land use designations contained in the City and County of Orange's General Plans. The Project is consistent with the County of Orange General Plan land use designation of Suburban Residential (1B) Communities, which allow a density of 0.5 to 18 dwelling units per acre (County of Orange 2021a). Therefore, the Project is consistent with the demographic assumptions and projections contained in the UWMP.

Furthermore, in September 2019, a will serve letter was received by the Project Applicant confirming that the City of Tustin is willing to provide water service to the Project (City of Tustin 2019, Appendix M). Based on this, the Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years, and impacts would be less than significant.

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

Less Than Significant Impact. Wastewater services at the Project site are currently and would continue to be provided by the EOCWD. The Project would replace the existing Tustin Hills Racquet and Pickleball Club, which currently generates wastewater. Wastewater from the Project would consist of sewage flows and wastewater from the kitchens and bathrooms of the proposed 37 units and would be collected by EOCWD, conveyed to IRWD facilities, and ultimately treated by treatment facilities owned and operated by the Orange County Sanitation District.

Specifically, the Project would include the construction of a new 8-inch wastewater line, which would connect to an existing private wastewater line that leads from the Project site to the south in an existing wastewater easement and then connects to the wastewater main within Pavillion Drive about 600 feet south of Simon Ranch Road. Wastewater flows are ultimately conveyed to an IRWD wastewater line on Lambert.

Ongoing coordination has occurred between the Project Applicant and EOCWD regarding wastewater line connections and capacity. In 2019, wastewater analyses were conveyed to EOCWD by the Project Applicant and a Service Commitment Letter was obtained outlining the requirements for the Project to obtain service from EOCWD (EOCWD 2019). In 2021, additional coordination occurred, and a Service Provider Acknowledgment Letter was obtained from EOCWD, in which EOCWD confirmed the Project is in the District and may be eligible for service,

² Based on the City of Tustin 2020 Urban Water Management Plan (Tustin 2020), the actual 2020 water consumption within the service area was 95 gallons per capita per day (GPCD). With the addition of 97 residents, the Project is expected to require 9,215 GPD. This adds up to approximately 10.32 acre feet per year.

pending EOCWD's review of the wastewater facilities' final design, as well as the filing of an application and payment of applicable fees. The 2021 letter also confirmed that EOCWD's consulting engineer had reviewed wastewater capacity calculations provided by the Project Applicant, but that the Project Applicant would have to confirm capacity of IRWD's downstream facilities, which would ultimately receive wastewater flows from the Project site after they travel through EOCWD's facilities. Therefore, in February 2021, the Project Applicant coordinated with IRWD and obtained an IRWD Sewer Capacity letter for the Project, which confirmed that IRWD would have adequate capacity for the Project. Therefore, given that coordination has occurred with wastewater providers and capacity has been confirmed, the Project would result in less than significant impacts related to this threshold, and no mitigation measures are either required or recommended.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. The Project involves demolition of the existing structures and paved surfaces on the Project site, which would generate debris to be hauled off site. In accordance with the CALGreen Code, at least 50 percent of demolition and construction debris generated by the Project would have to be diverted from landfills by recycling, reuse, and/or salvage (CBSC 2018).

Consistent with State requirements, a number of waste diversion programs, including residential curbside residential greenwaste collection, commercial self-haul greenwaste, commercial organics recycling, food waste composting, waste exchange, and residential buy-back. According to CalRecycle, unincorporated Orange County had disposal rates of 3.40 pounds/persons/day in 2019 (CalRecycle 2021b). Using this rate, the Project's 97 residents would generate approximately 329.8 pounds of solid waste per day (or 60.19 tons per year; or 0.17 tons per day). This solid waste volume is negligible compared to the daily capacity of 11,500 tons per day at the Frank R. Bowerman Landfill and remaining capacity of 205 million cubic yards (CalRecycle 2021a). Therefore, the Project's impacts associated with generation of solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure would be less than significant, and no mitigation measures are either required or recommended.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. During construction and operation, the Project would be required to comply with applicable federal, State, and local management and reduction laws and regulations regarding the proper disposal of solid waste, including the County of Orange Zoning Code as it relates to solid waste and recycling (County of Orange 2021b). State, County, and local agencies with regulatory authority related to solid waste include CalRecycle, and OC Waste & Recycling (County of Orange). Regulations specifically applicable to the Project include the California Integrated Waste Management Act of 1989 (AB 939) and Section 4.408 of the CALGreen Code. Where feasible, the Project would recycle and reuse materials on the Project site, such as the reuse of parking lot pavement for on-site road base.

To achieve the waste diversion requirements set forth by the California Integrated Waste Management Act and CALGREEN during construction, Resolution No. 16-118 was adopted by the

County of Orange Board of Supervisors on December 13, 2016, which contains the County of Orange's policies and program related to the diversion of construction and demolition waste. All covered projects, including the proposed Project, are required to recycle and/or salvage for reuse a minimum of 65% of the non-hazardous total construction and demolition waste (CBSC 2018). Additionally, 100% of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. Resolution No. 16-118 delegates the responsibility for implementation of this program to OC Waste & Recycling. Receipts are provided by the permit applicant for each project to OC Waste & Recycling to document which materials were salvaged for reuse or recycling. Alternatively, the materials can be disposed of at an approved recycling facility or processed through collection by the County of Orange's Franchised Waste Haulers.

The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste during construction and operations. Therefore, the Project would result in less than significant impacts related to this threshold, and no mitigation measures are either required or recommended.

4.17.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0 (County of Orange 2021c). Six of these projects would increase residential or commercial density on their project sites, which would be anticipated to increase demand for utilities and service systems. All of these projects would generate demolition waste.

Similarly, the Project would result in the incremental increase in demand for services including water, wastewater, stormwater conveyance, landfills, natural gas, and electricity. The Project includes connections to existing utilities, the impacts of which have been disclosed within this EIR. Water and wastewater capacities were confirmed by the City of Tustin, EOCWD, and IRWD as discussed above.

All cumulative projects would be required to upgrade and install infrastructure, as needed, to accommodate each cumulative project, in coordination with utility service providers. These on- and off-site improvements would be required to be analyzed as part of each project's environmental review, and would be mitigated to the extent feasible. Therefore, cumulative impacts related to the relocation or upgrade of utilities is anticipated. Each cumulative project would also be required to evaluate and confirm the availability of water and wastewater treatment services as part of their environmental and discretionary review process. Therefore, cumulative impacts related to the reliability of water and wastewater services would also be less than significant. Finally, solid waste that would be generated by the cumulative projects as well as the proposed Project would not be cumulatively considerable given these projects would collectively generate a very small percentage of the daily capacity for the landfill that would receive these projects' waste. Also, the County of Orange's solid waste landfill system is expected to continue to have the ability to provide the proposed Project with long-term solid waste landfill capacity, both on a project-specific and cumulative basis given that the County of Orange maintains 15 years of countywide solid waste landfill capacity, as required by AB 939.

4.17.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to utilities and service systems were identified; therefore, no mitigation measures are required.

4.17.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to utilities and service systems would be less than significant, and no mitigation measures are required or recommended.

4.17.8 REFERENCES

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4.18 WILDFIRE

4.18.1 EXISTING CONDITIONS

The Project site currently developed with the Tustin Hills Racquet and Pickleball Club. Single family residential land uses surround the Project site in all directions, with the rear yards of adjacent residences abutting the Project site on all sides. The Project site is surrounded by existing single-family residential development and is currently developed with the Tustin Hills Racquet and Pickleball Club. According to the Fire Hazard Severity Zones Viewer maintained by CALFIRE, the Project site is not located within or near a VHFHSZ (CALFIRE 2021). The nearest designated Very High Fire Hazard Severity Zones VHFHSZ is located within the Peters Canyon Open Space Preserve, located approximately 0.75 miles northeast of the Project site (CALFIRE 2021).

4.18.2 REGULATORY SETTING

State

California Public Resources Code

California Public Resources Code Section 4291 sets forth requirements for defensible space, including clearing most flammable vegetation within 30 feet of buildings, and reducing flammable vegetation 30 feet to 100 feet from buildings (PRC 2021).

California Building Standards Code

New construction in any FHSZ must comply with California Building Standards Code (CBSC) Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure. CBSC Chapter 7A sets forth requirements pertaining to roofing; vents (covered with metal wire mesh or other materials with openings no larger than 0.125 inch); exterior coverings; floor projections; underfloor protection; exterior windows, skylights, and doors; decking; accessory structures; and use of ignition-resistant materials. (DGS 2018).

California Fire Code

The 2019 California Fire Code, California Code of Regulations, Title 24, Part 9, effective January 1, 2020, is based on the 2018 International Fire Code. Typical fire safety requirements of the California Fire Code include requirements for the installation of fire sprinkler; building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures within wildfire hazard areas. In addition, the California Fire Code addresses fire flow requirements, fire hydrant spacing, and access road specifications (DGS 2019).

California Fire Code Chapter 49, Requirements for Wildland-Urban Interface Fire Areas, sets forth requirements for hazardous vegetation and fuel management and defensible space and requires compliance with construction methods mandated in CBSC Chapter 7A (DGS 2019).

California Department of Forestry and Fire Prevention

The California Department of Forestry and Fire Prevention's (CAL FIRE's) prepares FHSZ maps for State Responsibility Area (SRA) and Local Responsibility Areas (LRA) considering many factors such as fire history, existing and potential fuel (natural vegetation), flame length, blowing embers, terrain, and typical weather for the area (CAL FIRE 2021).

Local

County of Orange General Plan

The County of Orange General Plan Safety Element, Chapter IX, requires the construction of fuel modification zones such as firebreaks, fuel breaks, or greenbelts to alleviate fire dangers near the interface between urban development and wildlands (County of Orange 2021a).

County of Orange Code of Ordinances

The County of Orange Code of Ordinances sets forth requirements for wildfire and fire protection as described below (County of Orange 2021b).

- **Section 3-3-5. Chapter 3** specifies requirements and procedures to be followed in a fuel modification zone, Wildfire Risk Area (WRA), Wildland-Urban Interface Area (WUI), or in locations where conditions could cause the spread of fire to the WRA or WUI.
- **Section 3-3-31. Chapter 49** specifies fuel modification requirements for new construction built or installed in a Wildfire Risk Area.
- **Section 7-9-289. Fire protection** outlines procedures for a subdivision proposed to be located in an area shown on the Safety Element to be a State designated LRA or SRA, Very High Fire Hazard Severity Zone (VHFHSZ), High Fire Hazard Severity Zone, or Moderate Fire Hazard Severity Zone, and including areas not designated by the State that are subject to brush fires or wildfires.

4.18.3 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, the Project would result in a significant wildfire impact if it is located in or near state responsibility areas or lands classified as VHFHSZs, and would:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?
- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- c) Require installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage change?

4.18.4 IMPACT ANALYSIS

- a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?*

No Impact. The Project site is surrounded by existing single-family residential development and is currently developed with the Tustin Hills Racquet and Pickleball Club. According to the Fire Hazard Severity Zones Viewer maintained by CALFIRE, the Project site is not located within a VHFHSZ (CALFIRE 2021). The nearest designated Very High Fire Hazard Severity Zones VHFHSZ is located within the Peters Canyon Open Space Preserve, located approximately 0.75 miles northeast of the Project site (CALFIRE 2021). There are no adopted emergency response plans or emergency evacuation plans applicable to the Project site. Furthermore, the Project would require review by the Orange County Fire Authority and other applicable County of Orange departments to ensure the Project design provides adequate emergency vehicle access in compliance with the requirements of the County of Orange Code of Ordinances. Therefore, the Project would not interfere with an emergency response plan. Therefore, no impact would result, and no mitigation measures are either required or recommended.

- b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

No Impact. The Project site is not located within or near a VHFHSZ (CALFIRE 2021). The nearest designated VHFHSZ is located within the Peters Canyon Open Space Preserve, located approximately 0.75 miles northeast of the Project site (CALFIRE 2021). The Project would introduce residents and guests to the Project site. The Project site's topography would remain similar to existing conditions under the Project and would not result in physical conditions that would substantially exacerbate wildfire risk. The Project would have no effect on prevailing winds or in the potential for wildland fires to be encouraged during wind events. The Project would be constructed in compliance with the 2019 California Fire Code as well as the California Building Code, which contain regulations for safeguarding life and property from fire (ICC 2019; CBSC 2018). Furthermore, although additional occupants would utilize the site and new buildings would be constructed, the park would be closed during a wildfire event so it is unlikely that future park users would be exposed to pollutant concentrations from a wildfire or exposed to the uncontrolled spread of a wildfire. No other aspects of the park would otherwise exacerbate wildfire risks. Therefore, no impacts would result from the Project related to this threshold, and no mitigation measures are either required or recommended.

- c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project require installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

No Impact. The Project site is not located within or near a VHFHSZ (CALFIRE 2021). The nearest designated VHFHSZ is located within the Peters Canyon Open Space Preserve, located approximately 0.75 miles northeast of the Project site (CALFIRE 2021). The Project does not include any features that would either exacerbate fire risk or that would result in temporary or ongoing impacts to the environment related to this threshold. No impacts would result, and no mitigation measures are either required or recommended.

- d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage change?*

No Impact. The Project site is not located within or near a VHFHSZ (CALFIRE 2021). The nearest designated VHFHSZ is located within the Peters Canyon Open Space Preserve, located approximately 0.75 miles northeast of the Project site (CALFIRE 2021). Given the Project site's distance from areas susceptible to direct wildfire threat, it is not likely that the Project would be impacted by secondary wildfire effects such as flooding, landslides, runoff, slope instability, and/or drainage change. No impacts would result related to this threshold, and no mitigation measures are either required or recommended.

4.18.5 CUMULATIVE IMPACTS

Projects considered in the cumulative impact analysis consist of five projects within the unincorporated County of Orange and three projects in the City of Tustin. These related projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0.

As described above, the Project site is not located within or near a VHFHSZ, and would have no impacts related to the thresholds noted above. Therefore, the Project has no potential to contribute to cumulative wildfire-related impacts.

4.18.6 MITIGATION PROGRAM

Regulatory Requirements

There are no regulatory requirements that are applicable to this resource topic.

County Standard Conditions of Approval

There are no County Standard Conditions of Approval that are applicable to this resource topic.

Mitigation Measures

No significant impacts pertaining to wildfire were identified; therefore, no mitigation measures are required.

4.18.7 SIGNIFICANCE AFTER MITIGATION

Project impacts related to wildfire would be less than significant, and no mitigation measures are required or recommended.

4.18.8 REFERENCES

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5.0 ALTERNATIVES

The California Environmental Quality Act (CEQA) requires that an EIR describe a range of reasonable alternatives to a proposed project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant environmental impacts identified for the Project. The Project has no significant environmental impacts, and therefore under CEQA Guidelines Section 15126.6(f), no alternatives other than the No Project Alternative are required to be discussed. Nevertheless, this section includes discussion of two alternatives in order to foster informed decisionmaking and public participation. EIRs are also required to evaluate the comparative merits of the alternatives that are carried forward for consideration. This chapter of the EIR describes and evaluates project alternatives as required in the CEQA Guidelines. This chapter also identifies the Environmentally Superior Project Alternative as required by CEQA Guidelines Section 15126.6(e)(2).

5.1 PROJECT OBJECTIVES

As described originally in Chapter 3 of this EIR, the underlying purpose of the Project is to increase housing units in the North Tustin community. The Project is proposed to meet the following Project objectives:

- OBJ-1: Provide homes that would meet the increased demand and shortage of housing in the North Tustin community, especially for people that want to downsize but stay in the same general area.
- OBJ-2: Redevelop the Project site in an environmentally sensitive manner, including through the implementation of current codes and building standards that require water efficiency and energy efficiency, as well as through the implementation of water quality best management practices, drought tolerant landscaping, and other water conservation standards.
- OBJ-3: Redevelop the Project site in a manner that reduces impacts on the circulation network, and reduces traffic and other environmental impacts of the Tustin Hills Racquet and Pickleball Club, which currently occupies the Project site.

5.2 SELECTION OF ALTERNATIVES

The range of alternatives and methods for selection is governed by CEQA and applicable CEQA case law. As stated in the CEQA Guidelines Section 15126.6(a), the lead agency is responsible for selecting a range of alternatives and must disclose its reasoning for selecting those alternatives. This chapter includes the range of project alternatives that have been selected by the County as lead agency for examination, as well as its reasoning for selecting these alternatives.

As stated in Section 15126.6(a) of the CEQA Guidelines, there is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. This rule is described in Section 15126.6(f) of the CEQA Guidelines and requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. As defined in Section 15126.6(f), the rule of reason limits alternatives analyzed to those that would avoid or substantially lessen one

or more of the significant effects of a project. Of those alternatives, an EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. Other relevant provisions in the CEQA Guidelines state that EIRs do not need to consider every conceivable alternative to a project, nor are they required to consider alternatives that are infeasible.

5.2.1 ALTERNATIVES CONSIDERED BUT REJECTED

The CEQA Guidelines require that an EIR identify alternatives that were considered by the lead agency but rejected as infeasible along with a brief explanation of the reasons underlying this determination. Among the factors that may be used to eliminate alternatives from detailed consideration in the EIR are:

1. Failure to meet most of the basic project objectives,
2. Infeasibility, or
3. Inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6(c)).

In accordance with 15126.6(c) of the CEQA Guidelines, alternatives were considered by the County but rejected from further analysis due to one or more of the above reasons. A description of each alternative and the rationale for it being rejected from further consideration is provided below.

Reduced Density Alternative

The County considered the potential for a reduced density alternative, consisting of fewer than the 37 residential units that are proposed by the Project. With fewer units, a reduced density alternative would result in fewer vehicle trips than the Project, as well as fewer residences requiring public services and utilities. Therefore, when compared to the Project, a reduced density alternative would reduce the magnitude of impacts that were found to be less than significant for the Project related to operational air quality effects, operational energy demand, operational traffic noise, and public utility and public service demands. Although the magnitude of impacts would be reduced related to these resource topics, all of these impacts were found to be less than significant for the Project. A reduced density alternative would result in similar impacts to the Project related to all other resource topics.

The County has determined that a reduced density alternative would not be legally feasible due to the requirements of Senate Bill 330 (SB 330), the Housing Crisis Act of 2019, and the Housing Accountability Act (HAA), Gov. Code § 65589.5. Pursuant to SB 330 and the HAA, the County has no authority to reduce the density of the project below the 37 residential units proposed, since the Project meets the density requirements of the General Plan.

Maximum Density Alternative

The County considered the potential for an alternative that would allow for the development of the Project site using the maximum allowable density under the Suburban Residential (1B) Communities General Plan land use designation, which allows for a density of between 0.5 and

18 dwelling units per acre (du/ac). Conceptually, this alternative would consist of approximately 105 units, assuming 18 du/ac were to be developed on the 5.88 acre Project site.

With more units, a maximum density alternative would result in more vehicle trips than the Project, as well as more residences requiring public services and utilities. Therefore, when compared to the Project, a maximum permitted density alternative would increase impacts that were found to be less than significant for the Project related to operational air quality effects, operational energy demand, operational traffic noise, and public utility and public service demands. There is a potential that the maximum density alternative would result in significant impacts for air quality, energy, noise, public utilities, and public services that were not identified for the proposed Project. For all other resource topics, a maximum permitted density alternative would result in similar impacts to the Project.

Therefore, a maximum density alternative would not substantially lessen or avoid the significant impacts of the Project as is required for alternatives pursuant to CEQA Guidelines Section 15126.6. As such, this alternative was omitted from further consideration.

Alternative Sites Alternative

Pursuant to Section 15126.6(f)(2) of the CEQA Guidelines, the County considered the potential for alternative locations to the Project site. As stated in Section 15126.6(f)(2)(A), the first step in analyzing alternative sites is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered in the EIR. Given that there are no significant and unavoidable impacts associated with the Project, an alternative sites alternative would not substantially lessen or avoid the impacts of the Project; therefore, this alternative was omitted from further consideration.

Furthermore, it is worth noting that an alternative sites alternative would not be feasible. There are sites within the County of approximately equivalent size to the Project site that could be developed or redeveloped as a residential project; however, the Project Applicant does not own or control another site within the County of comparable land area, and it is not reasonable to expect them to acquire or otherwise have access to an alternative site to construct housing in North Tustin. One of the factors for feasibility of an alternative is “whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (CEQA Guidelines Section 15126.6(f)(1)).” As such, obtaining another site of a similar size is not considered feasible.

Also, related to meeting project objectives, constructing a residential development on a different site within the County would partially achieve the objectives for the Project, as identified in Section 1.43.3 of this EIR, including the provision of homes that would meet the increased demand and shortage of housing in the North Tustin community. For these reasons, an alternative sites alternative was not carried forward for further consideration.

5.2.2 ALTERNATIVES CARRIED FORWARD FOR CONSIDERATION

Pursuant to Section 15126.6 of the CEQA Guidelines, the County selected a reasonable range of alternatives to the Project that would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen one or more of the effects of the Project. The two alternatives carried forward for detailed consideration are described below in sufficient detail to allow for meaningful evaluation, analysis, and comparison of the alternatives with the Project.

No Project Alternative

As required by CEQA Guidelines Section 15126.6(e)(1), a No Project Alternative was considered. Under the No Project Alternative, the Project site would continue to operate as the Tustin Hills Racquet and Pickleball Club with no expansion or improvements. The existing facilities of the Tustin Hills Racquet and Pickleball Club consist of eight full-sized tennis courts, 12 pickleball courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet spaces, meeting rooms and administrative offices for a total of approximately 10,000 square feet. Under the No Project Alternative, the Project site would remain as it currently exists under existing conditions.

The No Project Alternative is economically, logistically, and politically feasible as it involves the continued operation of an existing club; however, the No Project Alternative would not meet the project objectives that are outlined above in Section 5.1, Project Objectives. Specifically, the No Project Alternative would not achieve OBJ-1 which is to provide additional homes to meet the increased demand and shortage of housing in the North Tustin community. The No Project Alternative would also not achieve OBJ-2, which is to redevelop the Project site in an environmentally sensitive manner, including through the implementation of current codes and building standards that require water efficiency and energy efficiency, as well as through the implementation of water quality best management practices, drought tolerant landscaping, and other water conservation standards. Finally, the No Project Alternative would not achieve OBJ-3, which is to redevelop the Project site in a manner that reduces impacts on the circulation network, and reduces traffic and other environmental impacts of the Tustin Hills Racquet and Pickleball Club, which currently occupies the Project site. Existing traffic, noise, night lighting and other impacts of the club would continue under the No Project Alternative.

As required by CEQA Guidelines Section 15126.6(e), the County has evaluated the No Project Alternative. However, it is worth noting that the County has determined that the No Project Alternative would not be legally feasible due to the requirements of Senate Bill 330 (SB 330), the Housing Crisis Act of 2019, and the Housing Accountability Act ("HAA"), Gov. Code § 65589.5. Pursuant to SB 330 and the HAA, the County has no authority to disapprove the proposed Project, since the Project meets all the objective criteria contained in the General Plan.

Comparison of the Effects of the No Project Alternative to the Project

Aesthetics

The No Project Alternative would maintain the existing buildings, landscaping, and lighting within the Project site. Therefore, the No Project Alternative does not have potential to result in a substantial adverse effect on a scenic vista or to substantially damage scenic resources. Furthermore, the No Project Alternative would not alter the visual character of the Project site as it would not result in new buildings or other structures. Night lighting would remain the same as in existing conditions, with the tennis and pickleball courts and other public areas being lit most nights until 9:00 p.m. The No Project Alternative would have fewer impacts than the Project. As described in Section 4.1, Aesthetics, the Project was determined to have less than significant impacts related to aesthetics.

Agriculture and Forestry Resources

As described in Section 2.5, Effects Not Found To Be Significant, of this EIR, the Project site contains no designated farmland as shown in the Farmland Mapping and Monitoring Program mapping, nor is the Project site zoned for or used for agriculture or forestry purposes. Therefore, because this alternative would be located on the same site as the proposed Project, the No Project Alternative would be consistent with the proposed Project and would have no impacts related to agriculture and forestry resources. The No Project Alternative would have no impacts, consistent with the Project.

Air Quality

The No Project Alternative would maintain the existing number of vehicle trips coming and going from the Project site, and may result in additional vehicle trips and associated air pollutant emissions if the club and banquet facilities were to be more intensely promoted and utilized. The No Project Alternative would not require any construction, which would avoid construction emissions, ground disturbance, and grading that would result under the proposed Project. This alternative would not result in other emissions, such as those leading to odors, that would adversely affect a substantial number of people. Therefore, the No Project Alternative would result in reduced construction impacts, but greater operational impacts than the Project. As described in Section 4.2, Air Quality, the Project was found to have less than significant impacts related to this resource topic.

Biological Resources

The No Project Alternative would utilize the existing facilities within the Project site and would not require vegetation clearing that could affect nesting birds or roosting bats. As described in Section 4.3, Biological Resources, of this EIR, the Project site does not contain habitat for candidate, sensitive, or special status species, nor are there any sensitive natural communities or state or federally protected wetlands. Finally, the Project site is not located within an adopted Habitat Conservation Plan or other approved local, regional, or state habitat conservation plan. Therefore, the No Project Alternative would have fewer impacts than the Project, which would temporarily remove vegetation from the entire Project site. For these reasons, as discussed in

Section 4.3, Biological Resources, the Project was determined to result in less than significant impacts with mitigation incorporated related to this resource topic.

Cultural Resources

The No Project Alternative would occur on the same site as the Project. As described in Section 4.4, Cultural Resources, of this EIR, the Project site does not contain historic resource or known archaeological resources or human remains. Nevertheless, there is the possibility that undiscovered intact archaeological deposits may be present in undisturbed Quaternary Alluvium below the Project site. The No Project Alternative would not require grading within the Project site or ground disturbance; therefore, there would be no potential to encounter or impact these resources under the No Project Alternative. Therefore, no ground disturbance would be required under the No Project Alternative, and the No Project Alternative would have fewer impacts than the Project. As described in Section 4.4, Cultural Resources, the Project would grade the entire Project site and thereby would result in less than significant impacts related to this resource topic with implementation of mitigation measures.

Energy

The Project site is currently developed as the Tustin Hills Racquet and Pickleball Club, which consumes energy for heating, lighting, and electronic devices. The No Project Alternative would not require any construction activities, and would maintain the number of buildings and other facilities requiring energy within the Project site. Therefore, the No Project Alternative would have fewer impacts than the Project. As described in Section 4.5, Energy, the Project would require energy use associated with the construction and operation of 37 residences on the Project site and would result in less than significant impacts related to this resource topic.

Geology and Soils

The No Project Alternative would occur on the same site as the Project. As described in Section 4.6, Geology and Soils, of this EIR, the Project site is located within the Southern California region, which is subject to secondary effects from earthquake; however, the Project site itself is not located within an earthquake fault zone or above an active fault. The Project site is not prone to liquefaction or landslides. Portions of the Project site has a “medium” expansive potential. The No Project Alternative would maintain the existing buildings within the Project site and would not require any grading or ground disturbance. As such, since no grading or ground disturbance would occur under the No Project Alternative, as well as because the No Project Alternative does not add new structures, it would have fewer impacts than the Project related to geology and soils. As described in Section 4.6, Geology and Soils, the Project would result in less than significant impacts with mitigation incorporated related to geology and soils.

Greenhouse Gas Emissions

The Project site is currently used as the Tustin Hills Racquet and Pickleball Club, with tennis and pickleball courts, a pool, spas, and banquet facilities. GHGs are emitted from current operations at the Project site. Existing GHG emissions result from the following sources: area, energy, mobile, waste, and water, as described in more detail in Section 4.7, Greenhouse Gas Emissions, of this EIR. Under the No Project Alternative, no site improvements would occur and daily

operations would remain generally consistent with existing conditions; therefore, no new GHG emissions would be generated under the No Project Alternative. The No Project Alternative would maintain these existing operations as well as their related GHG emissions, but would not require any short-term construction emissions. Therefore, the No Project Alternative would result in reduced construction impacts and greater operational impacts related to GHGs, when compared to the Project. As discussed in Section 4.7, Greenhouse Gas Emissions, the Project would result in less than significant impacts related to this resource topic.

Hazards and Hazardous Materials

Under the No Project Alternative, the ongoing operations of the Tustin Hills Racquet and Pickleball Club would involve the continued on-site handling of common materials, such as commercial cleansers, solvents and other janitorial or industrial-use materials; paints; and landscape fertilizers/pesticides, which are labeled as hazardous. As described in Section 4.8, Hazards and Hazardous Materials, of this EIR, given the age of the existing structure within the Project site, it is possible asbestos and lead-based paints could be present in the building materials. These materials would not be disturbed under the No Project Alternative, so their abatement and disposal would not be required. No construction activities would occur under the No Project Alternative, so typical hazardous materials used during construction would not be required for this alternative and would not need to be handled, stored, or used on the Project site. The No Project Alternative would result in no impacts to Cortese List properties, and would not result in a safety hazard or excessive noise related to airports given neither of these apply to the Project site. Furthermore, the No Project Alternative would not impair or interfere with an adopted emergency response plan or emergency evacuation plan as none of the adopted plans directly refer to the Project site. Also, the No Project Alternative includes no construction so no short-term effects related to construction traffic or detours would be required under this alternative, which could have a potential to affect emergency response. The No Project Alternative would occur on the same site as the Project. Therefore, consistent with the Project, the No Project Alternative would not be located within a Very High Fire Hazard Severity Zone. As such, the No Project Alternative would not result in significant impacts related to the exposure of people or structures to risk of loss, injury, or death related to wildfires. Overall, the No Project Alternative would have fewer impacts related to hazards and hazardous materials when compared to the Project. As described in Section 4.8, Hazards and Hazardous Materials, the Project would result in less than significant impacts.

Hydrology and Water Quality

Since the No Project Alternative would not require construction, no short-term water quality impacts would result from this alternative. The No Project Alternative would maintain the existing imperviousness and drainage system of the Project site; however, no new stormwater treatment or infiltration features would be implemented as would occur with the Project. The No Project Alternative does not include the addition of any impervious surfaces, so the quantity of storm water flowing from the Project site would be similar to existing conditions. The No Project Alternative would not directly extract groundwater, but water supplied to the Project site would continue to be provided by the City of Tustin, most of which is obtained from sustainably-managed groundwater supplies. Due to the location of the Project site no impacts related to flood hazards, tsunamis, or seiches would result from the No Project Alternative. Overall, no construction water quality impacts would occur under the No Project Alternative;

therefore, the No Project Alternative would result in reduced impacts when compared to the Project. As described in Section 4.9, Hydrology and Water Quality, the Project would result in less than significant impacts related to hydrology and water quality and no mitigation is required.

Land Use and Planning

The No Project Alternative would maintain the existing private Tustin Hills Racquet and Pickleball Club, which is surrounded by existing residential uses. The Project site does not include any public roads, paths, or trails that provide connectivity to established communities; therefore, no impacts related to this physical division of an established community would result from the No Project Alternative. Also, the No Project Alternative would not alter any aspects of the Project site, so there would be no new potential conflicts with any applicable land use plans or policies that could result from the No Project Alternative. The Project was found to have less than significant impacts related to consistency with land use plans and policies. Since the No Project Alternative would have no impact related to this threshold, the No Project Alternative would have less impacts related to this threshold when compared to the Project. As described in Section 4.10, Land Use and Planning, the Project would result in less than significant impacts related to land use and planning, and no mitigation is required.

Mineral Resources

The No Project Alternative would occur on the same site as the Project. Consistent with the Project, the No Project Alternative would not result in the loss of availability of a known mineral resource or of a locally-important mineral resource recovery site, given the Project site is already developed and does not contain any known mineral resources. Therefore, the No Project Alternative would have no impacts, consistent with the findings for the Project.

Noise

The No Project Alternative includes no construction activities; therefore, this alternative would not generate temporary or permanent increase in ambient noise levels in excess of established standards. The existing club generates traffic, which leads to ongoing operational traffic noise. The existing club also includes outdoor athletic facilities, including tennis and pickleball courts, a pool, and spas, as well as banquet facilities, which result in a varying degree of noise depending on the time of day, the users, and when special events are being held. Given that the Project site contains banquet-style event facilities, it is possible that the use of these facilities and their associated noise effects could be greater in the future if they were more fully utilized. As such, the No Project Alternative would result in less impacts related to temporary construction noise impacts and a potential increase in ongoing operational noise compared to the Project. As discussed in Section 4.11, Noise, the Project would result in less than significant impacts related to noise and no mitigation is required.

Population and Housing

The existing Tustin Hills Racquet and Pickleball Club does not contain any housing or residents; therefore, the No Project Alternative would not displace residents or necessitate new housing elsewhere. The Tustin Hills Racquet and Pickleball Club employs a limited amount of staff to

operate and maintain the facility. Any future increases in operations at the club that could occur under the No Project Alternative, such as holding additional banquets, would be so minor as to not create enough jobs to induce population growth. As such, since the No Project Alternative would not increase population, it would result in reduced impacts related to population and housing when compared to the Project. As discussed in Section 4.12, the Project would result in less than significant impacts related to population and housing and no mitigation is required.

Public Services

Under the No Project Alternative, the Orange County Fire Authority, and Orange County Sheriff-Coroner Department, would continue to provide services consistent with existing conditions. No new development would occur under this alternative; therefore, the No Project Alternative would not generate new demand for public services. Since the No Project Alternative does not add housing, it would not result in any demand for school services from Tustin Unified School District, nor would it generate demand for local or regional parks or libraries. Therefore, the No Project Alternative would result in reduced impacts related to public services when compared to the Project. As discussed in Section 4.13, Public Services, the Project would result in less than significant impacts related to this resource topic and no mitigation is required.

Recreation

The Project site contains the Tustin Hills Racquet and Pickleball Club, which is a private tennis club with a pool, spas, and banquet facilities. The No Project Alternative would involve the ongoing operations of the club, with no alterations or intensification of use. Given that the No Project Alternative would not involve the addition of residential units, there would be no increase in the use of existing neighborhood and regional parks associated with new residents. Therefore, the No Project Alternative would result in reduced impacts related to recreation when compared to the Project. As discussed in Section 4.14, Recreation, the Project would result in less than significant impacts related to this resource topic.

Transportation

The No Project Alternative would maintain the existing Tustin Hills Racquet and Pickleball Club, which generates 349 total average daily trips and associated vehicle miles traveled. Additionally, there is also periodic traffic generated by the usage of the banquet facilities on-site. The No Project Alternative would involve no alterations to the existing transportation system; therefore, it would not result in any conflicts with programs, plans, ordinances, or policies addressing the circulation system, nor would this alternative result in any hazards related to geometric design features or incompatible uses. It is assumed that any more intense uses of the Project site, within existing entitlements, would be served by existing driveways and parking facilities within the Project site. Emergency access is currently provided to the Project site via an access driveway, which is adequate to allow for emergency access. Ongoing operations of the club under The No Project Alternative would not conflict with programs, plans, or policies, nor would it change the land uses on the Project site, or emergency access to the Project site. Therefore, the No Project Alternative would not result in any transportation impacts. When compared to the Project, which would have less than significant impacts, the No Project Alternative would result in reduced impacts related to transportation.

Tribal Cultural Resources

There are no known tribal cultural resources within the Project site. The No Project Alternative would not involve any grading site or ground disturbance that might have a potential to encounter tribal cultural resources. The No Project Alternative would result in reduced impacts related to tribal cultural resources when compared to the Project. As discussed in Section 4.16, Tribal Cultural Resources, the Project would result in less than significant impacts related to this resource topic with mitigation incorporated.

Utilities and Service Systems

The No Project Alternative would maintain the existing levels of demand for utilities and service systems, including for water, wastewater, storm water drainage, electricity, natural gas, and landfills. Given the No Project Alternative would involve similar levels of use, limited or no additional utility demands would result from the No Project Alternative that would require or result in the relocation or reconstruction of new or expanded utility systems. Also, the No Project Alternative would maintain existing waste generation rates from the Project site and would not generate construction and demolition debris. Overall, the No Project Alternative would result in reduced impacts related to utilities and service systems when compared to the Project. As discussed in Section 4.17, Utilities and Service Systems, the Project would result in less than significant impacts related to utilities and service systems.

Wildfire

The No Project Alternative would occur on the same site as the Project. Consistent with the Project, the Project site is not located within a Very High Fire Hazard Severity Zone; therefore, the No Project Alternative would not result in significant impacts related to the exposure of people or structures to risk of loss, injury, or death related to wildfires. The Project would introduce new structures and occupants to the Project site which would not occur under the No Project Alternative. Therefore, the No Project Alternative would result in reduced impacts related to wildfire when compared to the Project. As discussed in Section 4.18, Wildfire, the Project would result in less than significant impacts.

Alternative 1 – Increased Setback Alternative

Alternative 1 would consist of the replacement of the existing Tustin Hills Racquet and Pickleball Club with a Planned Unit Development consisting of a total of 37 units. Under this alternative, the proposed residential structures would be clustered to allow for an average 25-foot setback from adjacent residential parcels, which is greater than the proposed Project's average setbacks. The same regulatory requirements, County's Standard Conditions of Approval, and mitigation measures as identified for the Project would be applicable to Alternative 1.

Alternative 1 is feasible as it would involve the construction of a similar number of units; however, it would require a reorganization of the 37 units to allow for greater setbacks. Alternatively, internal setback areas and common areas proposed for the Project could be reduced or reconfigured to allow for an average 25-foot setback from adjacent residential parcels. Alternative 1 would meet all of the project objectives that are outlined above in Section 5.1, Project Objectives.

Comparison of the Effects of the Alternative 1 to the Project

Aesthetics

Alternative 1 would construct residential units with greater average setbacks from adjacent parcels than what is proposed as part of the Project. Alternative 1 would result in the same impacts as the Project related to impacts to scenic vistas and scenic resources, and similar impacts related to consistency with zoning and other regulations governing scenic quality. When compared to the Project, Alternative 1 would result in a reduced potential for nighttime lighting to affect neighboring properties due to the increased setback distance. Also, a greater average setback from neighboring residential properties would result in greater consistency with these adjacent land uses. Since Alternative 1 and the Project involve the same Project site, disturbance of the same area, and construction and operation of similar proposed land uses, impacts would generally be similar for both, although Alternative 1 would result in reduced impacts related to nighttime lighting and improved consistency with adjacent land uses. Consistent with the findings of Section 4.1, Aesthetics, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Agriculture and Forestry Resources

As described in Section 2.5, Effects Not Found To Be Significant, of this EIR, the Project site contains no designated farmland as shown in the Farmland Mapping and Monitoring Program mapping, nor is the Project site zoned for or used for agriculture or forestry purposes. Therefore, both Alternative 1 and the Project would result in no impacts related to this resource topic.

Air Quality

The Project site is currently used as the Tustin Hills Racquet and Pickleball Club, with tennis and pickleball courts, a pool, spas, and banquet facilities. As such, minor air quality impacts related to vehicular emissions and on-site operations already result from within the Project site. Alternative 1 would result in the air quality emissions during grading and construction, as well as during operation of the residential units once Alternative 1 is built. Since Alternative 1 and the Project involve the same Project site and similar proposed land uses, impacts would be the same for both related to air quality emissions. Consistent with the findings of Section 4.2, Air Quality, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Biological Resources

Alternative 1 would grade and remove vegetation and buildings from the entire Project site, to the same extent as is proposed by the Project. The Project site has been previously disturbed and developed/landscaped. As described in Section 4.3, Biological Resources, of this EIR, the Project site does not contain habitat for candidate, sensitive, or special status species, nor are there any sensitive natural communities or state or federally protected wetlands. Furthermore, the Project site is not located within an adopted Habitat Conservation Plan or other approved local, regional, or state habitat conservation plan. Ornamental vegetation removal and building removal associated with Alternative 1 has the potential to impact nesting birds and western yellow bat, which would be mitigated with similar avoidance and pre-construction surveys as what is

required for the Project. Since Alternative 1 and the Project involve the same Project site, disturbance of the same area, and construction and operation of similar proposed land uses, impacts would be the same for both related to biological resources. Consistent with the findings of Section 4.3, Biological Resources, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic with mitigation incorporated.

Cultural Resources

Alternative 1 would occur on the same site as the Project and would involve the same level of building removal and ground disturbance. As described in Section 4.4, Cultural Resources, of this EIR, the Project site does not contain historic resources or known archaeological resources or human remains. Nevertheless, there is the possibility that undiscovered intact archaeological deposits may be present in undisturbed Quaternary Alluvium below the Project site. Alternative 1 would require the same level of grading and ground disturbance within the Project site; therefore, there would be the same potential to encounter and impact these resources under Alternative 1 as for the Project. Since Alternative 1 and the Project involve the same Project site, impacts would be the same for both related to cultural resources. Consistent with the findings of Section 4.4, Cultural Resources, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic with incorporation of mitigation.

Energy

The Project site is currently developed as the Tustin Hills Racquet and Pickleball Club, which utilizes energy for heating, lighting, and electronic devices. Alternative 1 would require the same construction activities as the Project and would develop the same number of residential buildings that would consume energy at the same rates once they are built. Since Alternative 1 and the Project involve construction and operation of the same number of residential units on the same site, impacts would be the same for both related to energy usage. Consistent with the findings of Section 4.5, Energy, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Geology and Soils

Alternative 1 would occur on the same site as the Project and would involve the same extent of grading, ground disturbance, and building construction. As described in Section 4.6, Geology and Soils, of this EIR, the Project site is located within the Southern California region, which is subject to secondary effects from earthquake; however, the Project site itself is not located within an earthquake fault zone or above an active fault. Also, the Project site is not prone to liquefaction or landslides. Portions of the Project site exhibit a “medium” expansive potential. Alternative 1 would have the same impacts as the Project, which was found to require mitigation related to strong seismic ground shaking, landslides, and unstable soil that would be mitigated through compliance with the applicable regulations, and proper grading, design, and building construction methods specified in the Project’s Geotechnical Investigations. Also, Alternative 1 would have the same impacts as the Project related to inadvertent discovery of paleontological resources during ground disturbance, which would be mitigated through implementation of monitoring during grading and excavation activities in native soils and salvage of fossils should they be found on-site. Since Alternative 1 and the Project involve the same Project site, disturbance of the same area, and construction and operation of similar proposed land uses, the

Project and Alternative 1 would have the same impacts related to geology and soils, which were determined to be less than significant with incorporation of mitigation.

Greenhouse Gas Emissions

The Project site is currently used as the Tustin Hills Racquet and Pickleball Club, with tennis and pickleball courts, a pool, spas, and banquet facilities. As such, GHGs are already emitted from current operations at the Project site. GHG emissions would occur during construction and operation of Alternative 1. Since Alternative 1 and the Project involve the same Project site, disturbance of the same area, and construction and operation of similar proposed land uses, impacts would be the same for both related to greenhouse gas emissions. Consistent with the findings of Section 4.7, Greenhouse Gas Emissions, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Hazards and Hazardous Materials

The Project site is not identified as a Cortese List property, nor is it within two miles of an airport or within an airport land use plan. As such, Alternative 1 would have no impacts related to these threshold topics. The Project site and its immediate surroundings are not subject to wildland fires; therefore, less than significant impacts would result from implementation of Alternative 1 related to the exposure of people or structures to risk of loss, injury, or death involving wildland fires. Alternative 1 would result in less than significant impacts related to potential conflicts with evacuation plans since it would not impact any designated evacuation routes or otherwise conflict with any such plans or policies. During building demolition, construction, and operation of Alternative 1 there would be potential for exposure, handling, transport, and use of hazardous materials. Significant impacts would be avoided through adherence with existing regulations and safety standards. Since Alternative 1 and the Project involve the same Project site and similar proposed land uses, impacts would be the same for both related to hazards and hazardous materials. Consistent with the findings of Section 4.8, Hazards and Hazardous Materials, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Hydrology and Water Quality

Alternative 1 would result in water quality impacts during construction and operations, which would be avoided and minimized through the implementation of best management practices identified in a Storm Water Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP). Since Alternative 1 and the Project involve the same Project site and very similar development of residential units with similar amount of impervious surface coverage, impacts would be the same for both related to hydrology and water quality. Consistent with the findings of Section 4.9, Hydrology and Water Quality, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Land Use and Planning

Alternative 1 consists of a residential community that would be built on a currently occupied private racquet club, which would be demolished as part of the Project. The Project site does not include any public roads, paths, or trails that provide connectivity to established communities that would be impacted by the Project. Therefore, Alternative 1 would not physically divide an

established community. For the same reasons as are presented in Section 4.10 for the Project, Alternative 1 would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Since Alternative 1 and the Project involve the same Project site and consist of similar development of 37 residential units, impacts would be the similar for both related to land use and planning. Consistent with the findings of Section 4.10, Land Use and Planning, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required

Mineral Resources

Alternative 1 would occur on the same site as the Project. Consistent with the Project, Alternative 1 would not result in the loss of availability of a known mineral resource or of a locally-important mineral resource recovery site, given the Project site is already developed and does not contain any known mineral resources. Therefore, Alternative 1 would have no impacts related to this resource topic, consistent with the findings for the Project.

Noise

Alternative 1 would result in noise from construction as well as operational noise associated with traffic noise as well as typical noise associated with a residential development. Alternative 1 would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of applicable standards, nor would it result in the generation of excessive groundborne vibration. Since Alternative 1 and the Project involve the same Project site, disturbance of the same area, and construction and operation of similar proposed improvements, impacts would be the same for both related to noise. Consistent with the findings of Section 4.11, Noise, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Population and Housing

Alternative 1 would result in additional housing and residents within the Project site; however, for the same reasons as discussed in Section 4.12, Population and Housing, Alternative 1 would not result in substantial unplanned population growth. In addition, Alternative 1 would construct 37 residential units on a site currently developed as a racquet club and would thereby not require the demolition of any existing residential structures. Therefore, implementation of Alternative 1 will not displace existing housing or people and would not require the construction of replacement housing. Since Alternative 1 and the Project involve the same Project site and similar proposed improvements, impacts would be the same for both related to population and housing. Consistent with the findings of Section 4.12, Population and Housing, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Public Services

Alternative 1 would result in an increase in residents within the Project site, which would result in increased demand for police, fire protection, schools, parks, and libraries when compared to existing conditions. Since Alternative 1 and the Project involve the same Project site and similar proposed improvements, impacts would be the same for both related to public services.

Consistent with the findings of Section 4.13, Public Services, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Recreation

Alternative 1 would result in an increase in residents within the Project site, which would result in increased demand for parks and recreational facilities when compared to existing conditions. Since Alternative 1 and the Project involve the same Project site and similar proposed improvements, impacts would be the same for both related to recreation. Consistent with the findings of Section 4.14, Recreation, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Transportation

Alternative 1 would not conflict with a program, plan, ordinance, or policy addressing the circulation system, and would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) for the same reasons as outlined for the Project in Section 4.15, Transportation. Similarly, there are no aspects of Alternative 1 that would substantially increase transportation hazards or that would result in inadequate emergency access. Since Alternative 1 and the Project involve the same Project site and similar proposed improvements, impacts would be the same for both related to transportation. Consistent with the findings of Section 4.15, Transportation, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Tribal Cultural Resources

Alternative 1 would occur on the same site as the Project and would involve the same level of building removal and ground disturbance. As described in Section 4.16, Tribal Cultural Resources, of this EIR, the Project site does not contain known tribal cultural resources, and has been previously developed. Nevertheless, there is the possibility that undiscovered intact tribal cultural resources may be present below the Project site. Alternative 1 would require the same level of grading and ground disturbance within the Project site as the Project; therefore, there would be the same potential to encounter and impact these resources under Alternative 1 as for the Project. Since Alternative 1 and the Project involve the same Project site and disturbance of the same area, impacts would be the same for both related to tribal cultural resources. Consistent with the findings of Section 4.16, Tribal Cultural Resources, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic with incorporation of mitigation.

Utilities and Service Systems

Alternative 1 would result in an increase in residents within the Project site, which would result in increased demand for utilities and service system. Since Alternative 1 and the Project involve the same Project site and similar proposed improvements, impacts would be the same for both related to utilities and service systems. Consistent with the findings of Section 4.17, Utilities and Service Systems, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

Wildfire

Alternative 1 would occur on the same site as the Project, which is not within or near an area classified as a Very High Fire Hazard Severity Zone. Therefore, Alternative 1 would not result in significant impacts related to the exposure of people or structures to risk of loss, injury, or death related to wildfires. Alternative 1 would introduce new structures and occupants to the Project site which would also occur as part of the Project. Consistent with the findings of Section 4.18, Wildfire, Alternative 1 and the Project would both result in less than significant impacts related to this resource topic and no mitigation is required.

5.2.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) indicates that an analysis of alternatives to a project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR.

The CEQA Guidelines also state that should it be determined that the “no project” alternative is the environmentally superior alternative, the EIR shall identify another environmentally superior alternative among the remaining alternatives.

A comparative summary of the environmental impacts associated with each alternative is provided in Table 5-1, Comparison of Alternatives. As shown, the No Project Alternative would be the environmentally superior alternative, and Alternative 1 would be the environmentally superior build alternative. Although the Project has no significant and unavoidable impacts, the No Project Alternative and Alternative 1 would result in no new environmental impacts, and would avoid some of the Project’s less than significant impacts. However, the No Project Alternative would not fully attain any of the basic objectives of the project nor would the No Project Alternative achieve the underlying purpose of the Project.

**TABLE 5-1
COMPARISON OF ALTERNATIVES**

Impact Area	Project	No Project Alternative	Alternative 1
Aesthetics	Less Than Significant Impact	Reduced Impacts	Reduced Impacts
Agriculture	No Impacts	Consistent With Proposed Project:	Consistent With Proposed Project
Air Quality	Less Than Significant Impact	Reduced construction impacts; Greater operational impacts	Consistent With Proposed Project
Biological Resources	Less Than Significant Impact With Mitigation	Reduced Impacts	Consistent With Proposed Project
Cultural Resources	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project
Energy	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project

**TABLE 5-1
COMPARISON OF ALTERNATIVES**

Impact Area	Project	No Project Alternative	Alternative 1
Geology and Soils	Less Than Significant Impact With Mitigation	Reduced Impacts	Consistent With Proposed Project
Greenhouse Gas Emissions	Less Than Significant Impact	Reduced construction impacts; Greater operational impacts	Consistent With Proposed Project
Hazards and Hazardous Materials	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project
Hydrology and Water Quality	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project
Land Use and Planning	Less Than Significant Impact	Reduced Impacts	Reduced Impacts
Mineral Resources	No Impacts	Consistent With Proposed Project:	Consistent With Proposed Project
Noise	Less Than Significant Impact	Reduced construction impacts; Greater operational impacts	Consistent With Proposed Project
Population and Housing	Less Than Significant Impact	Consistent With Proposed Project:	Consistent With Proposed Project
Public Services	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project
Recreation	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project
Transportation	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project
Tribal Cultural Resources	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project
Utilities and Service Systems	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project
Wildfire	Less Than Significant Impact	Reduced Impacts	Consistent With Proposed Project

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