

**DRAFT PROGRAM
ENVIRONMENTAL IMPACT REPORT**

**LAGUNA WOODS GENERAL PLAN
AND ZONING CODE UPDATE
LAGUNA WOODS, CALIFORNIA**

LSA

May 2024

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DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT

LAGUNA WOODS GENERAL PLAN AND ZONING CODE UPDATE LAGUNA WOODS, CALIFORNIA

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LIST OF ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
AB	Assembly Bill
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	average daily trips
af	acre-feet
afy	acre-feet per year
AHS	American Housing Survey
APA	American Planning Association
APN	Assessor's Parcel Number
APS	Alternative Planning Strategy
AQMP	Air Quality Management Plan
Basin	South Coast Air Basin
BMPs	Best Management Practices
BTU	British Thermal Units
CAA	(Federal) Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	(CAPCOA's) California Emissions Estimator Model

CalEPA	California Environmental Protection Agency
CALGreen Code	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Adaptation Plan
CARB	California Air Resources Board
CARB Handbook	<i>Air Quality and Land Use Handbook: A Community Health Perspective</i>
CAT	Climate Action Team
CBC	California Building Code
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CCSP	Climate Change Science Program
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	California Fire Code
CH ₄	methane
City	City of Laguna Woods
CIWMP	Countywide Integrated Waste Management Plan
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide

CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
County	County of Orange
CPUC	California Public Utilities Commission
CUSD	Capistrano Unified School District
dB	decibel(s)
dBA	A-weighted decibel(s)
du/ac	dwelling units per acre
DWR	California Department of Water Resources
EDD	(State of California) Employment Development Department
EIA	United States Energy Information Administration
EIR	Environmental Impact Report
EMFAC	EMission FACtor Model
EO	Executive Order
ETWD	El Toro Water District
FIP	Federal Implementation Plan
GHG	greenhouse gas
GWh	gigawatt-hours
GWP	global warming potential
HCD	Department of Housing and Community Development
HFCs	hydrofluorocarbons
I-5	Interstate 5
IGR	Intergovernmental Review
IPCC	Intergovernmental Panel on Climate Change

IS/ND	Initial Study/Negative Declaration
IS/NOP	Initial Study/Notice of Preparation
ITE	Institute of Transportation Engineers
IWMP	Integrated Waste Management Plan
kWh	kilowatt hours
lbs/day	pounds per day
LBUSD	Laguna Beach Unified School District
LCFS	Low Carbon Fuel Standard
L _{dn}	day-night average noise level
L _{eq}	equivalent continuous sound level
LID	low impact development
LIP	Local Implementation Plan
L _{max}	maximum A-weighted sound level
LST	Localized Significance Threshold
MET	Metropolitan Water District of Southern California, also MWD
mg	million gallon
mgd	million gallons per day
MM	Mitigation Measure
MMT	million metric tons
MMT CO ₂ e	million metric tons of carbon dioxide equivalent
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resources Zone

MSA	Metropolitan Statistical Area
MT	metric tons
MT CO ₂ e	metric tons of carbon dioxide equivalent
MT CO ₂ e/SP/yr	metric tons of carbon dioxide equivalent per service population per year
MT CO ₂ e/yr	metric tons of carbon dioxide equivalent per year
MW	megawatt
MWD	Metropolitan Water District of Southern California, also MET
MWDOC	Municipal Water District of Southern California
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP/HCP	Natural Communities Conservation Plan/Habitat Conservation Plan
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
NO ₂	nitrogen dioxide
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
OCFA	Orange County Fire Authority
OCFCD	Orange County Flood Control District
OCPL	Orange County Public Libraries
OCSD	Orange County Sheriff's Department
OCTA	Orange County Transportation Authority

OCTAM	Orange County Transportation Analysis Model
OD	origin-destination
OPR	(California) Governor’s Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Pb	lead
PEIR	Program Environmental Impact Report
PFCs	perfluorocarbons
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
ppm	parts per million
PRC	California Public Resources Code
Project	Laguna Woods General Plan and Zoning Code Update
RCM	Regulatory Compliance Measure
RCP	Regional Comprehensive Plan
RHNA	Regional Housing Needs Assessment
ROGs	reactive organic gases
RPS	Renewables Portfolio Standard
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SAFE	Safer Affordable Fuel-Efficient
SAFE Vehicles Rule	<i>The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks</i>

SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCH	State Clearing House
SCS	Sustainable Communities Strategy
SEMS	Standard Emergency Management System
SF ₆	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SoCalGas	Southern California Gas Company
SOCWA	South Orange County Wastewater Authority
SO _x	sulfur oxides
SP	service population
SR-73	State Route 73
SR-91	State Route 91
SR-133	State Route 133
SRRE	Source Reduction and Recycling Element
SUSMP	Standard Urban Stormwater Mitigation Plans
SVUSD	Saddleback Valley Unified School District
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminants
TAZ	traffic analysis zone

tpd	tons per day
UNFCCC	United Nations Framework Convention on Climate Change
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOCs	volatile organic compounds
Working Group	GHG CEQA Significance Threshold Working Group
WRP	Water Recycling Plant
ZEVs	zero emission vehicles
ZNE	zero net energy

1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Draft Program Environmental Impact Report (PEIR) for the Laguna Woods General Plan and Zoning Update (herein referred to as the “Project” or “proposed Project”) has been prepared by LSA on behalf of the City of Laguna Woods (City) to identify and evaluate the potential environmental effects associated with the proposed Project.

This PEIR has been prepared in accordance with the California Environmental Quality Act (CEQA)¹ and *Guidelines for California Environmental Quality Act*² (CEQA Guidelines), both of which regulate the preparation of EIRs. As required pursuant to *State CEQA Guidelines* (Section 15123), this section of the PEIR summarizes the proposed Project; the environmental impacts and mitigation required to reduce or eliminate those impacts determined to be significant; areas of controversy known by the City including those raised by other agencies and the public; the issues to be resolved; and alternatives to the Project that could reduce the extent and/or severity of the proposed Project’s environmental impacts. While this Executive Summary provides an overview of these issues, more detail is provided in subsequent sections of this PEIR as follows:

- Project Description (Chapter 3.0)
- Environmental Impacts (Chapter 4.0)
- Project Alternatives (Chapter 5.0)
- Other CEQA Considerations (Chapter 6.0)

1.2 PROPOSED PROJECT

Following the City Council’s approval of the Housing Element Update, State law requires that the City update its General Plan and Zoning Code to be consistent with its new Housing Element. This Project would ensure that relevant provisions of the City’s General Plan and Zoning Code comply with the recently adopted Housing Element Update. The City proposes to update its General Plan Circulation, Land Use, and Noise Elements, and rename the Circulation Element to the Mobility Element, in order for the individual elements of the General Plan to be internally consistent.

The City prepared the City of Laguna Woods 2021–2029 General Plan Housing Element Update for the 6th Cycle Planning Period (Housing Element Update) and also prepared an Initial Study/Negative Declaration (IS/ND) consistent with CEQA and the *State CEQA Guidelines* in order to evaluate the potential environmental impacts that may result from implementation of the Housing Element Update. The City Council adopted the Housing Element Update on February 9, 2022, and it is currently being reviewed by the California Department of Housing and Community Development (HCD). In compliance with Government Code Section 65583(a)(3), the Housing Element Update identified 17 potential sites that were suitable for residential development (Potential Housing Sites),

¹ California Environmental Quality Act, California Public Resources Code, Division 13. Environmental Quality, Sections 21000 – 21189.3, January 1, 2022.

² California Code of Regulations, Chapter 3: Guidelines for the Implementation of the California Environmental Quality Act, Title 14, Sections 15000 – 15387, January 1, 2022 (*State CEQA Guidelines*).

including 1 vacant site and 16 sites having the potential for redevelopment. In addition to the proposed adoption of overlay zoning districts on the Potential Housing Sites, minor land use designation administrative changes to the General Plan and zoning are proposed at 12 additional locations in the City to make the land use designations better correlate to the existing uses (these locations are referred to as the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses in this PEIR). The proposed land use and zoning changes at these sites simply recognize the existing uses on the sites. The proposed Project evaluated in this PEIR includes the updates to the Circulation, Land Use, and Noise Elements of the City's General Plan, a renaming of the Circulation Element to the Mobility Element, and amendments to the City's Zoning Code.

The proposed Project would establish Residential; High, Medium, Medium-Low and Low Density overlay zones that could accommodate up to 1,196 dwelling units on the Potential Housing Sites. Additionally, the proposed Project would amend the land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, which are owned by the City, the Golden Rain Foundation, and the El Toro Water District. Of these, the land use designations on 10 parcels would be changed from Commercial, Open Space, or Residential Community to Community Facilities. Land use designations on the other two properties would be changed from Residential Community and High Density Residential to Open Space. The proposed Project would also update the noise contour maps in the Noise Element to reflect current noise conditions in the City as well as those anticipated under General Plan build out, and would also rename the General Plan Circulation Element to the Mobility Element, which would emphasize the City's commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel.

1.2.1 Project Objectives

In conformance with *State CEQA Guidelines* Section 15124, the following primary objectives support the Project's purpose, assist the Lead Agency in developing a reasonable range of alternatives to be evaluated in this PEIR, and ultimately aid the decision-makers in preparing findings and overriding considerations, if necessary. The Project's purpose is to update the City's General Plan and Zoning Code to address the City's housing needs and meet State law requirements and reflect logical land use designations and zoning districts. The following Project objectives are provided to support this purpose:

1. **Enhanced Housing Choices.** The Project is intended to accommodate a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably priced housing for all income groups.
2. **Adequate Housing Supply.** The Project would amend the City's General Plan and Zoning Code to provide adequate potential housing sites with corresponding density to meet the City's Regional Housing Needs Assessment (RHNA) allocation of 997 housing units, inclusive of prior planning cycle carryover housing units. The Project would also include a 199-dwelling-unit buffer sufficient to accommodate the RHNA during the entire planning period given the requirements of the "no net loss" statute. The Project would accommodate the appropriate distribution of new multi-family housing throughout the City.

3. **Community Character, Health, and Safety.** The Project would permit well-designed in-fill development that protects and enhances the quality of life and character of established neighborhoods and promotes healthy and safe living environments.
4. **Multi-modal Transportation.** The Project would decrease reliance on the automobile and encourage active lifestyles through policies and in-fill development that increase the safety, convenience, and integration of multiple transportation modes.
5. **Minimization of Noise Sources.** The Project would minimize exposure of sensitive noise receptors to the detrimental effects of excessive noise from new development by incorporating noise considerations into land use planning decisions.

1.3 ISSUES ADDRESSED AND AREAS OF CONTROVERSY TO BE RESOLVED

CEQA requires the Project be reviewed to determine the environmental effects that would result if the Project were approved and implemented. The City of Laguna Woods is the Lead Agency³ and has the responsibility of preparing and adopting the associated environmental document prior to consideration of the approval of the proposed Project.

In accordance with *State CEQA Guidelines* Section 15060, the City has determined that the Project would have a potentially significant effect on the environment and that an EIR is required to assess project-related impacts. This PEIR addresses the following environmental issues identified in Appendix G of the *State CEQA Guidelines*:

- Aesthetics
- Air Quality
- Energy
- Greenhouse Gas Emissions
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

The PEIR contains a detailed Project Description, maps identifying the locations of the Potential Housing Sites and the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, the existing environmental setting, project-specific impacts, cumulative impacts, mitigation measures to reduce potential impacts, a mitigation monitoring plan, and an alternatives analysis. The PEIR's environmental analysis utilizes data from site- and project-specific technical studies that are distributed as appendices to the Draft PEIR.

A Notice of Preparation (NOP) (**Appendix A**) was distributed advising responsible and trustee agencies, other affected agencies, interested parties, and individual members of the public that the City is preparing an EIR to address the potential environmental impacts that may result from the Project.

³ California Code of Regulations, Chapter 3: Guidelines for the Implementation of the California Environmental Quality Act, Title 14, Sections 15051(a) and (c).

In evaluating the significance of the environmental effects of the Project, the City must consider the direct physical changes in the environment which may be caused by the Project and reasonably foreseeable indirect physical changes in the environment which may be caused by the Project.⁴ These physical changes may include:

- A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the Project. (For example, the removal of vegetation from the site during Project construction.)
- An indirect physical change in the environment is a physical change in the environment, which is not immediately related to the Project, but which is caused indirectly by the Project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment. (For example, construction of a new wastewater treatment plan could allow an increase in population, traffic, and new sources of air pollution). An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the Project. A change which is speculative or unlikely to occur is not reasonably foreseeable.

The Project's impact(s), the severity of any impact(s), and the mitigation measures required to reduce or eliminate the impacts relative to these environmental issues are addressed in Sections 4.1 through 4.10 and summarized in Table 1.C at the end of Section 1.5. Issues of concern and/or controversy related to the Project were further identified by the City through responses to the NOP, Public Scoping Meetings, and Native American Tribal Consultation.

1.3.1 Notice of Preparation

The objective of distributing an NOP is to solicit public comment, ensuring the full and appropriate examination of issues of concern in the PEIR. This notice informs the public that a PEIR will be prepared for the Project. The NOP was distributed to the State Clearinghouse, as well as to the agencies, organizations, and persons considered likely to be interested in the Project and its potential impacts. Comments received regarding the NOP have been used to identify impacts that could result from implementation of the Project. An NOP for the Project was distributed for a 30-day public comment period from August 1, 2022, through August 30, 2022. The NOP and response letters received are included in **Appendix A** of this PEIR. Table 1.A, below, provides a general summary of NOP comments received by the City during the NOP review period and identifies in which section of the PEIR each specific NOP comment has been addressed.

1.3.2 Public Scoping Meeting

Pursuant to *State CEQA Guidelines*,⁵ the City conducted a public scoping meeting, which was held to further determine the scope and content of the environmental analysis contained in the PEIR.

⁴ *State CEQA Guidelines*, Section 15064(d).

⁵ *State CEQA Guidelines*, Section 15082(c)).

Table 1.A: Notice of Preparation Comments

Agency/ Organization/ Individual	Date Received by City	Summary of Comments	Addressed in Section(s) of the PEIR
Quechan Indian Tribe	August 4, 2022	Informed the City that they have no comments and deferred to more local Tribes.	2.0 (Introduction)
Native American Heritage Commission	August 4, 2022	Recommended consultation with Tribes that are affiliated with the geographic area of the proposed Project.	2.0 (Introduction)
Saddleback Valley Unified School District (SVUSD)	August 8, 2022	Requested that the Draft PEIR evaluate the potential impacts of the Project on SVUSD schools by identifying the location of the properties and calculating the number of dwelling units that may be developed as well as the number of students generated, by grade level and school. SVUSD also requested an evaluation of potential impacts on school capacity and possible overcrowding, and requested that the updates made to the City's General Plan and the Draft PEIR focus on possible impacts to student safety and well-being.	4.8 (Public Services)
City of Aliso Viejo	August 15, 2022	Requested a color version of the map on the Notice of Preparation (NOP) with the properties affected by the proposed Project. No further comments were received.	None
Southern California Association of Governments (SCAG)	August 15, 2022	Requested that the proposed Project be consistent with the adopted Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and its goals.	4.2 (Air Quality); 4.4 (Greenhouse Gas Emissions); 4.5 (Land Use and Planning); 4.7 (Population and Housing); and 4.10 (Transportation)
Agua Caliente Band of Cahuilla Indians	August 16, 2022	Informed the City that the Project is not within their Traditional Use Area and deferred to more local Tribes.	4.17 (Transportation) and 4.11 (Land Use and Planning)
Orange County Transportation Authority (OCTA)	August 29, 2022	Requested that OCTA be kept apprised of the Project and requested continued coordination with OCTA to maintain consistency between the Circulation Element and the Orange County Master Plan of Arterial Highways.	4.11 (Land Use and Planning); 4.14 (Population and Housing); and 4.10 (Transportation)
California Department of Transportation – (Caltrans) District 12	August 30, 2022	Requested that the Project consider providing a discussion about the City's multimodal mobility strategies relating to transit bus and rail services as well as active transportation for local and regional connectivity. Caltrans also requested that the Project consider a discussion about wayfinding signage to transit stops within the Project vicinity and local roadways. Caltrans noted that the agency is striving for more equitable outcomes for the transportation network's diverse users. Caltrans requested consideration of a discussion on potential impacts to the circulation element from freight traveling into, from, and/or through the	4.7 (Population and Housing); 4.8 (Public Services); and 4.10 (Transportation)

Table 1.A: Notice of Preparation Comments

Agency/ Organization/ Individual	Date Received by City	Summary of Comments	Addressed in Section(s) of the PEIR
		City, as a result of the General Plan updates. Caltrans emphasized that new development resulting from the City’s Housing Element update should provide a Vehicle Miles Traveled (VMT) based Traffic Impact Study (TIS).	
California Department of Fish and Wildlife (CDFW) - South Coast Region 5	August 30, 2022	Recommended for the City to follow guidelines set forth in the Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) during implementation of the Project and that open space be maximized when planning future housing projects. Also requested for a discussion of potential adverse impacts from lighting, noise, human activity, sensitive species, recreational uses, and potential impacts to Aliso Creek and other biological resources to be addressed in the PEIR. Also requested for written notification to be provided to CDFW to assess whether impacts to Aliso Creek may occur from individual development projects associated with the PEIR.	4.5 (Land Use and Planning) and 4.9 (Recreation)

The public scoping meeting for the Project was held on August 16, 2022, at 2:00 p.m., at Laguna Woods City Hall and virtually. City staff and the PEIR consultant were present during this meeting to provide information regarding the Project and collect public comments. There were no comments received during the public scoping meeting.

1.3.3 Native American Consultation (Senate Bill 18 and Assembly Bill 52)

The proposed development is a Project under CEQA and includes General Plan Amendments and Zoning Code amendments; therefore, consultation pursuant to both Senate Bill (SB) 18⁶ and Assembly Bill (AB) 52⁷ is required. The City provided consultation requests (via certified mail) to the following Native American entities on July 22, 2022. Table 1.B details the Native American governments contacted pursuant to this legislation.

As Table 1.B articulates, the City received responses from the Agua Caliente Band of Cahuilla Indians on August 16, 2022, the Quechan Tribe of the Fort Yuma Reservation on August 4, 2022, and the Gabrieleno Band of Mission Indians – Kizh Nation on December 12, 2023. The tribes’ requests are summarized in Table 1.B. No other contact or consultation request was received from any other Native American tribal authority.

⁶ California Government Code, Sections 65040.2, 65092, 65351, 65352, 65560, 65352.3, 65352.4, and 65562.

⁷ California Public Resources Code, Sections 5097.94, 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3

Table 1.B: Native American Consultation

Native American Government/Contact ¹	Date of Contact	Summary
Gabrielino Tongva Indians of California	<p>Two rounds of correspondence were sent to Native American contacts.</p> <p>First Round: July 22, 2022</p> <p>Second Round: November 30, 2023</p>	No further contact or consultation request received.
Gabrielino/Tongva Nation		No further contact or consultation request received.
Gabrielino-Tongva Tribe		No further contact or consultation request received.
Gabrieleno/Tongva San Gabriel Band of Mission Indians		No further contact or consultation request received.
Gabrieleno Band of Mission Indians - Kizh Nation		Tribe requested consultation under both AB 52 and SB 18 on December 12, 2023. Tribe informed the City on March 11, 2024, that they have no comments given that the Project does not involve any ground disturbance. Tribe requested notification of any future ground disturbances.
Iipay Nation of Santa Ysabel		No further contact or consultation request received.
Agua Caliente Band of Cahuilla Indians		<p>Tribe informed the City on August 16, 2022, that after a records check with the Tribal Historic Preservation Office’s cultural registry, the Project was not revealed to be within the Tribe’s Traditional Use Area, and therefore deferred to the more local Tribes.</p> <p>No further contact or consultation request received.</p>
Inaja-Cosmit Band of Indians		No further contact or consultation request received.
Jamul Indian Village		No further contact or consultation request received.
Barona Group of Capitan Grande Band of Mission Indians		No further contact or consultation request received.
Ewiiapaayp Band of Kumeyaay Indians		No further contact or consultation request received.
Juaneno Band of Mission Indians		No further contact or consultation request received.
Campo Band of Diegueno Mission Indians		No further contact or consultation request received.
Juaneno Band of Mission Indians Acjachemen Nation		No further contact or consultation request received.
Kwaaymii Laguna Band of Mission Indians		No further contact or consultation request received.
La Jolla Band of Luiseno Indians		No further contact or consultation request received.
La Posta Band of Diegueno Mission Indians		No further contact or consultation request received.
Manzanita Band of Kumeyaay Nation		No further contact or consultation request received.
Mesa Grande Band of Diegueno Mission Indians		No further contact or consultation request received.
Pala Band of Mission Indians		No further contact or consultation request received.
Pauma Band of Luiseno Indians	No further contact or consultation request received.	
Quechan Tribe of the Fort Yuma Reservation	<p>Tribe informed the City on August 4, 2022, that they have no comments on the Project and deferred to the more local Tribes.</p> <p>No further contact or consultation request received.</p>	
San Pasqual Band of Diegueno Mission Indians	No further contact or consultation request received.	
Santa Rosa Band of Cahuilla Indians	No further contact or consultation request received.	

Table 1.B: Native American Consultation

Native American Government/Contact ¹	Date of Contact	Summary
Soboba Band of Luiseno Indians		No further contact or consultation request received.
Sycuan Band of the Kumeyaay Nation		No further contact or consultation request received.
Viejas Band of Kumeyaay Indians		No further contact or consultation request received.

¹ Multiple contacts to some tribes (based on the Native American Heritage Commission contact list).

1.4 ALTERNATIVES TO THE PROPOSED PROJECT

An EIR must describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the Project objectives, and would avoid or substantially lessen its significant effects.⁸ The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives that “... foster informed decision making and public participation.” The City, as Lead Agency, is responsible for selection the range of Project alternatives and must disclose its reasoning for selecting those alternatives.

Alternatives that fail to meet most of the stated project objectives, are infeasible, or do not avoid significant environmental effects, may be rejected by the Lead Agency. The “no project” analysis shall discuss the existing conditions at the time the NOP preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.⁹

The City of Laguna Woods has identified the following alternatives to the Project. Chapter 5.0 (Alternatives) of this PEIR provides a detailed description of each Project alternative, assesses the potential environmental impacts associated with its construction and operation of each alternative, and provides justification for the selection of the “environmentally superior” alternative.

1.4.1 Alternative 1: No Project

In certain instances, the No Project Alternative means “no build,” a condition in which the existing environmental setting is maintained. Under this alternative, accommodation for the City’s RHNA allocation would not occur. No alterations to the City would occur, and all residential development would generally remain in their current conditions. None of the impacts of the proposed Project, adverse or beneficial, would occur. The No Project Alternative would be the same as existing conditions, which were described in the environmental setting section for each environmental topic. This alternative may result in the State taking over control of the City’s Housing Element and implementing minimum zoning requirements to accommodate housing for a diversity of housing to meet the needs of multiple income categories. RHNA compliance by each jurisdiction has received significant oversight by the State Department of Housing and Community Development due to the ongoing housing crisis facing California. Therefore, a No Project Alternative is not possible.

⁸ *State CEQA Guidelines*, Section 15126.3.

⁹ *State CEQA Guidelines*, Section 15126.6(e)(2)

1.4.2 Alternative 2: Reduced Density Alternative

This alternative would result in a 199-unit reduction of housing units on all of the Potential Housing Sites. This alternative would reduce the proposed residential units on those sites from 1,196 dwelling units to 997 dwelling units, and result in a population growth of approximately 1,984 residents. This represents an approximate 17 percent reduction in growth as compared to the Project. The mitigation measures applied to the Project (1,196 dwelling units) would still be required if the Project's housing units were capped at 997 dwelling units.

The Reduced Density Alternative would be inferior to the proposed Project in meeting one of the Project objectives and would fail to meet another Project objective because the reduction in housing units would decrease accommodation of a variety of housing types to meet the needs of all Laguna Woods residents and it would not include the 199-dwelling-unit buffer sufficient to accommodate the RHNA during the entire planning period given the requirements of the "no net loss" statute. Therefore, the Reduced Density Alternative is not superior to the proposed Project.

1.4.3 Environmentally Superior Alternative

As described and analyzed in Chapter 6.0, Alternatives, of this PEIR, the proposed Project is the environmentally superior alternative because it is the only alternative with the ability to satisfactorily meet each of the Project objectives while also avoiding or minimizing as many significant environmental impacts as possible.

1.5 SUMMARY OF IMPACTS, MITIGATION, AND LEVEL OF IMPACTS

Table 1.C provides a summary of the proposed Project impacts, proposed mitigation measures, and the level of significance of each impact following the application of identified mitigation measures.

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
4.1 Aesthetics			
Impact 4.1.6.1: Scenic Vistas.	No Impact	No mitigation measures are required.	No Impact
Impact 4.1.6.2: Scenic Resources within a State Scenic Highway.	No Impact	No mitigation measures are required.	No Impact
Impact 4.1.6.3: Consistency with Applicable Zoning and Regulations Governing Scenic Quality.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.1.6.4: Substantial Light and Glare.	No Impact	No mitigation measures are required.	No Impact
Impact 4.1.7: Cumulative Aesthetics Impact.	Not cumulatively considerable	No mitigation measures are required.	Not cumulatively considerable
4.2 Air Quality			
Impact 4.2.6.1: Air Quality Management Plan Consistency.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.2.6.2: Increase in Criteria Air Pollutants (Regional Construction and Operation).	Less Than Significant Impact	<p>RCM AQ-1: During clearing, grading, earth moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventative measures by using the following procedures, in compliance with South Coast Air Quality Management District (SCAQMD) Rule 403 during construction. The applicable Rule 403 measures are as follows:</p> <ul style="list-style-type: none"> • Apply nontoxic chemical soil stabilizers according to manufacturers’ specifications to all inactive construction areas (previously graded areas inactive for 10 days or more). • Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving). • Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114. • Pave construction access roads at least 100 feet (30 meters) onto the site from the main road. 	Less Than Significant Impact

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
		<ul style="list-style-type: none"> • Reduce traffic speeds on all unpaved roads to 15 miles per hour or less. <p>RCM AQ-2: All trucks that are to haul excavated or graded material shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.</p> <p>RCM AQ-3: Prior to approval of future project plans and specifications for public projects undertaken by the City of Laguna Woods, the City shall confirm that the construction bid packages specify:</p> <ul style="list-style-type: none"> • Contractors shall use high-volume low-pressure paint applicators with a minimum transfer efficiency of at least 50 percent; • Coatings and solvents that will be utilized have a volatile organic compound content lower than required under SCAQMD Rule 1113; and • To the extent feasible, construction/building materials shall be composed of pre-painted materials. <p>RCM AQ-4: Future projects shall comply with SCAQMD Rule 402. Rule 402 prohibits the discharge of air contaminants or other material from any type of operations, which can cause nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort or repose of any such persons, or the public.</p>	
<p>Impact 4.2.6.3: Sensitive Receptor Exposure to Pollutants (Local Construction and Operation).</p>	<p>Less Than Significant Impact</p>	<p>RCM AQ-1: During clearing, grading, earth moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventative measures by using the following procedures, in compliance with South Coast Air Quality Management District (SCAQMD) Rule 403 during construction. The applicable Rule 403 measures are as follows:</p> <ul style="list-style-type: none"> • Apply nontoxic chemical soil stabilizers according to 	<p>Less Than Significant Impact</p>

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
		<p>manufacturers’ specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).</p> <ul style="list-style-type: none"> • Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving). • Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114. • Pave construction access roads at least 100 feet (30 meters) onto the site from the main road. • Reduce traffic speeds on all unpaved roads to 15 miles per hour or less. <p>RCM AQ-2: All trucks that are to haul excavated or graded material shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.</p> <p>RCM AQ-3: Prior to approval of future project plans and specifications for public projects undertaken by the City of Laguna Woods, the City shall confirm that the construction bid packages specify:</p> <ul style="list-style-type: none"> • Contractors shall use high-volume low-pressure paint applicators with a minimum transfer efficiency of at least 50 percent; • Coatings and solvents that will be utilized have a volatile organic compound content lower than required under SCAQMD Rule 1113; and • To the extent feasible, construction/building materials shall be composed of pre-painted materials. <p>RCM AQ-4: Future projects shall comply with SCAQMD Rule 402. Rule 402 prohibits the discharge of air contaminants or other</p>	

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
		material from any type of operations, which can cause nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort or repose of any such persons, or the public	
Impact 4.2.6.4: Odors.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.2.7: Cumulative Air Quality Impact.	Not cumulatively considerable	No mitigation measures are required.	Not cumulatively considerable
4.3 Energy			
Impact 4.3.6.1: Energy Consumption.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.3.6.2: Project Consistency with Energy Strategies.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.3.7: Cumulative Energy Impacts.	Not cumulatively considerable	No mitigation measures are required.	Not cumulatively considerable
4.4 Greenhouse Gas			
Impact 4.4.6.1: Greenhouse Gas Emissions.	Potentially Significant Impact	Mitigation Measure GHG-1: Prior to discretionary approval by the City of Laguna Woods (City) for residential development projects subject to California Environmental Quality Act (CEQA) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project-related greenhouse gas (GHG) impacts to the City for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (SCAQMD) methodology. If project-related GHG emissions exceed applicable SCAQMD thresholds of significance and/or statewide GHG reduction targets, the City of Laguna Woods shall require that applicants for new development projects incorporate mitigation measures to reduce GHG emissions. Mitigation measures could include, but are not limited, to energy efficiency measures, water conservation and efficiency measures, solid waste measures, and transportation and motor vehicles measures. The identified measures shall be included as part of the conditions of approval.	Significant and Unavoidable

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
Impact 4.4.6.2: Greenhouse Gas Plan, Policy, and Regulation Consistency.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.4.7: Cumulative Greenhouse Gas Emissions Impact.	Cumulatively Considerable	No mitigation measures are required.	Cumulatively Considerable
4.5 Land Use and Planning			
Impact 4.5.6.1: Physically Divide an Established Community.	No Impact	No mitigation measures are required.	No Impact
Impact 4.5.6.2: Conflict with Applicable Land Use Plans, Policies, or Regulations.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.5.7: Cumulative Land Use and Planning Impacts.	Not Cumulatively Considerable	No mitigation measures are required.	Not Cumulatively Considerable
4.6 Noise and Vibration			
Impact 4.6.6.1: Noise Levels in Excess of Established Local Standards.	Less Than Significant Impact	RCM Noise-1: Prior to the issuance of building permits by the City of Laguna Woods (City), the City shall conduct site plan review for any residential units located within 60 Community Noise Equivalent Level (CNEL) noise contours and above. The site plan review shall be conducted consistent with the City Noise Element (Table N-1 and Table N-2). New construction or development should be undertaken only after detailed analysis of the noise requirements is made and needed noise insulation features included in the design. The interior noise standard is 45 decibels (dB). The exterior standard for habitable exterior living areas, including private yards, private patios and balconies, and common recreation areas, is 65 dB.	Less Than Significant Impact
Impact 4.6.6.2: Ground-borne Vibration/Ground-borne Noise Impacts.	Potentially Significant Impact	Mitigation Measure N-1: Prior to discretionary approval by the City of Laguna Woods (City), residential development projects subject to California Environmental Quality Act (CEQA) review (i.e., nonexempt projects) would be required to incorporate the following conditions: <ul style="list-style-type: none"> • Prior to the issuance of building permits, the applicant shall submit a final acoustical report consistent with the requirements of the California Building Standards Code or City policy, provided that City policy is no less effective than the 	Less Than Significant Impact

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
		<p>California Building Standards Code.</p> <ul style="list-style-type: none"> ○ The final acoustical report shall describe in detail the noise environment and mitigation measures necessary to achieve compliance with applicable noise standards. The report shall also describe and depict the locations of the acoustical barriers and design features of the structures required to satisfy the exterior and interior noise standards along with satisfactory evidence, which indicates that the sound attenuation measures specified in the final acoustical report, have been incorporated into the design of the project. Noise level calculations shall be provided using the Community Noise Equivalent Level (CNEL) noise scale. ● The applicant shall incorporate the requirements of the City's Noise Ordinance as a note on the grading plan cover sheet, for review and approval by the City. ● The applicant shall incorporate the following measures as a note on the grading plan cover sheet: <ul style="list-style-type: none"> ○ Construction equipment, fixed or mobile, shall be maintained in proper operating condition with approved noise mufflers. ○ Construction staging areas shall be located away from off-site receptors and occupied buildings on site during the later phases of project development. ○ Stationary equipment shall be placed such that emitted noise is directed away from residential areas to the greatest extent feasible. ○ Construction access routes shall be selected to minimize truck traffic near existing residential uses where reasonably feasible. 	
Impact 4.6.6.3: Public/Private Airport Noise.	No Impact	No mitigation measures are required.	No Impact

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
Impact 4.6.7: Cumulative Noise and Vibration Impact.	Not Cumulatively Considerable	RCM Noise-1: Prior to the issuance of building permits by the City of Laguna Woods (City), the City shall conduct site plan review for any residential units located within 60 Community Noise Equivalent Level (CNEL) noise contours and above. The site plan review shall be conducted consistent with the City Noise Element (Table N-1 and Table N-2). New construction or development should be undertaken only after detailed analysis of the noise requirements is made and needed noise insulation features included in the design. The interior noise standard is 45 decibels (dB). The exterior standard for habitable exterior living areas, including private yards, private patios and balconies, and common recreation areas, is 65 dB.	Not Cumulatively Considerable
4.7 Population and Housing			
Impact 4.7.6.1: Substantial Unplanned Population Growth.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.7.6.2: Displace Substantial Numbers of Existing People.	No Impact	No mitigation measures are required.	No Impact
Impact 4.7.8: Cumulative Population and Housing Impact.	Not Cumulatively Considerable	No mitigation measures are required.	Not Cumulatively Considerable
4.8 Public Services			
Impact 4.8.6.1(i): Fire Protection.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.8.6.1(ii): Police Protection.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.8.6.1(iii): Schools.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.8.6.1(iv): Parks.	Less Than Significant Impact	RCM REC-1: Prior to the issuance of building permits by the City of Laguna Woods (City), the most current parkland dedication and/or in-lieu fee for future development shall be dedicated and/or paid by the developer as calculated by the City, pursuant to Chapter 11.06 of the City’s Municipal Code. The building permits shall be issued by the City once proof of the appropriate parkland dedication is determined and/or in-lieu fee is paid.	Less Than Significant Impact

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
Impact 4.8.6.1(v): Other Public Facilities- Libraries.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.8.7: Cumulative Public Service Impact.	Not Cumulatively Considerable	RCM REC-1: Prior to the issuance of building permits by the City of Laguna Woods (City), the most current parkland dedication and/or in-lieu fee for future development shall be dedicated and/or paid by the developer as calculated by the City, pursuant to Chapter 11.06 of the City's Municipal Code. The building permits shall be issued by the City once proof of the appropriate parkland dedication is determined and/or in-lieu fee is paid.	Not Cumulatively Considerable
4.9 Recreation			
Impact 4.9.7.1: Increase the Use of Existing Neighborhood and Regional Parks.	Less Than Significant Impact	RCM REC-1: Prior to the issuance of building permits by the City of Laguna Woods (City), the most current parkland dedication and/or in-lieu fee for future development shall be dedicated and/or paid by the developer as calculated by the City, pursuant to Chapter 11.06 of the City's Municipal Code. The building permits shall be issued by the City once proof of the appropriate parkland dedication is determined and/or in-lieu fee is paid.	Less Than Significant Impact
Impact 4.9.7.2: Recreational Facilities Physical Effects on the Environment.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.9.9: Cumulative Recreation Impacts.	Not Cumulatively Considerable	RCM REC-1: Prior to the issuance of building permits by the City of Laguna Woods (City), the most current parkland dedication and/or in-lieu fee for future development shall be dedicated and/or paid by the developer as calculated by the City, pursuant to Chapter 11.06 of the City's Municipal Code. The building permits shall be issued by the City once proof of the appropriate parkland dedication is determined and/or in-lieu fee is paid.	Not Cumulatively Considerable
4.10 Transportation			
Impact 4.10.7.1: Conflicts with a program, plan, ordinance, or policy addressing the circulation system.	Less Than Significant Impact	No mitigation measures are required.	Less than Significant
Impact 4.10.7.2: Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant Impact
Impact 4.10.7.3: Design Features or Incompatible Uses.	No Impact	No mitigation measures are required.	No Impact
Impact 4.10.7.4: Inadequate Emergency Access.	No Impact	No mitigation measures are required.	No Impact

Table 1.C: Environmental Impacts, Mitigation Measures and Regulatory Compliance Measures (RCM)

Issues/Impacts	Significance before Mitigation	Mitigation Measure(s)/Regulatory Compliance Measure(s)	Significance after Mitigation
Impact 4.10.9: Cumulative Transportation Impacts.	Not Cumulatively Considerable	No mitigation measures are required.	Not Cumulatively Considerable
4.11 Utilities and Service Systems			
Impact 4.11.6.1: New or Expanded Utility Infrastructure.	No Impact	No mitigation measures are required.	No Impact
Impact 4.11.6.2: Adequate Water Supplies.	No Impact	No mitigation measures are required.	No Impact
Impact 4.11.6.3: Adequate Wastewater Treatment Capacity.	No Impact	No mitigation measures are required.	No Impact
Impact 4.11.6.4: Adequate Landfill Capacity.	No Impact	No mitigation measures are required.	No Impact
Impact 4.11.6.5: Compliance with Solid Waste Regulations.	No Impact	No mitigation measures are required.	No Impact
Impact 4.11.8: Cumulative Utilities and Service Systems Impacts.	Not Cumulatively Considerable	No mitigation measures are required.	Not Cumulatively Considerable

2.0 INTRODUCTION

This Program Environmental Impact Report (PEIR) has been prepared to evaluate environmental impacts associated with the proposed Laguna Woods General Plan and Zoning Code Update (proposed Project) in Laguna Woods, California. The City of Laguna Woods (City) is the “public agency which has the principal responsibility for carrying out or approving the project”¹ and, as such, is the “Lead Agency” for the proposed Project under the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on the proposed Project. This EIR is intended to serve as an informational document to be considered by the City.

The proposed Project would:

- Create the following four new overlay zoning districts that allow housing development:
 - Residential High Density Overlay (would allow 30 to 50 dwelling units per acre [du/ac])
 - Residential Medium Density Overlay (would allow 20 to 30 du/ac)
 - Residential Medium-Low Density Overlay (would allow 15 to 20 du/ac)
 - Residential Low Density Overlay (would allow 8 to 10 du/ac)

Creation of the new overlay zoning districts also includes the creation of development standards for each.

- Rezone 17 properties (a total of 18 parcels) to allow housing development in addition to the uses already allowed under the existing zoning on those properties. This action would accommodate the City’s 6th Cycle Regional Housing Needs Assessment (RHNA) allocation. The City plans to apply one of the four new overlay zoning districts to each parcel; no change in General Plan land use designation is proposed. These sites are referred to as the Potential Housing Sites in this PEIR.
- Update the General Plan Land Use Element to change the land use designations of 12 properties (a total of 14 parcels), and undertake a corresponding rezone of the 12 properties, to better represent their existing uses. These locations are referred to in the PEIR as the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses.
- Update the City's General Plan Circulation Element, Land Use Element, and Noise Element to ensure internal consistency with the City's General Plan Housing Element, update background and existing condition information, update the identification of priority issues, update goals and policy objectives, and make other changes intended to modernize the documents while also promoting clarity and ease of use. Change the name of the Circulation Element to “Mobility Element”.

¹ As defined in Public Resources Code Section 21067.

The approvals associated with the proposed Project are described in further detail in Chapter 3.0, Project Description.

The City, as Lead Agency, determined that the proposed Project may have a significant effect on the environment and that an EIR would be required to more fully evaluate potential adverse environmental impacts that may result from the implementation of the proposed Project. As a result, this EIR has been prepared in accordance with CEQA and the *State CEQA Guidelines* (California Code of Regulations [CCR], Title 14, Section 15000 et seq.).

2.1 PURPOSE AND TYPE OF EIR/USES OF THE EIR

This EIR has been prepared to evaluate potential environmental impacts that could result from implementation of the proposed Project. As the Lead Agency, the City has the principal responsibility for approving the proposed Project. In that capacity, the City has decided to prepare this PEIR and, after the public review process, will decide whether to certify the Final EIR.

The City has the authority to make decisions on discretionary actions relating to the proposed Project. As stated previously, this EIR is intended to serve as an informational document to be considered by the City during deliberations on the proposed Project. This EIR evaluates a reasonable worst-case scenario of potential impacts associated with the proposed Project and identifies feasible mitigation (if necessary) and alternatives for any identified potentially significant impacts.

This EIR will serve as a Program EIR (PEIR) pursuant to *State CEQA Guidelines* Section 15168. According to Section 15168 of the *State CEQA Guidelines*, a Program EIR may be prepared for a series of actions that are related geographically, as logical parts in a chain of contemplated actions, or in connection with the issuance of plans that govern the conduct of a continuing program (per CEQA Guidelines, Section 15168(a)). The advantages of a PEIR include the ability to provide a more exhaustive consideration of alternatives and cumulative effects than might be possible in a single project-specific EIR; to avoid duplication of basic policy considerations; provide the lead agency with the ability to consider broad program-wide policies and mitigation measures that would apply to specific projects or later activities within the overall program (CEQA Guidelines, Section 15168 (b)); and use the PEIR when examining later activities to determine whether an additional environmental document must be prepared (CEQA Guidelines, Section 15168(c)). If a later activity is found to be within the scope of the PEIR, no further environmental documents would be required.

As the Lead Agency for the proposed Project under CEQA, the City must consider the information contained in the Final EIR prior to taking any discretionary action with respect to the proposed Project. This PEIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from implementation of the proposed Project. Public review of this PEIR is required to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. *State CEQA Guidelines* Section 15151 states the following regarding the standards from which adequacy is judged:

“An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental

effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure.”

Public Resources Code Section 21002.1(a) states:

“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.”

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the *State CEQA Guidelines* and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

2.2 PUBLIC REVIEW PROCESS

In compliance with CEQA and the *State CEQA Guidelines*, the City has taken steps to promote opportunities for the public and other public agencies to participate in the environmental review process. The City conducted the scoping process, issued a Notice of Preparation (NOP), and determined that an EIR was required to evaluate the potentially significant environmental effects of the proposed Project and related actions. Additionally, a public scoping session was conducted, as discussed below.

2.2.1 Notice of Preparation/Scoping Meeting

On August 1, 2022, an NOP for the proposed Project was distributed by the City via the State Clearinghouse (SCH) and was circulated for review from August 1 to August 30, 2022. The SCH issued a unique identification number for this PEIR (SCH No. 2022080022). In accordance with *State CEQA Guidelines* Section 15082, the NOP was circulated to the agencies and individuals identified in Appendix A, and was posted at the Orange County Clerk-Recorder’s Office for a period of 30 days, during which time written comments were solicited pertaining to environmental issues/topics that this PEIR should evaluate. The NOP was also made available for public review at Laguna Woods City Hall and on the City’s website during the review period. The City held a hybrid public scoping meeting, which included a virtual and an in-person option, on Tuesday, August 16, 2022, to present the proposed Project and to solicit input from interested parties regarding environmental issues that should be addressed in this PEIR.

Written comments in response to the NOP were received from the following agencies:

- Quechan Indian Tribe
- Native American Heritage Commission (NAHC)
- Saddleback Valley Unified School District
- City of Aliso Viejo

- Southern California Association of Governments (SCAG)
- Agua Caliente Band of Cahuilla Indians
- Orange County Transportation Authority (OCTA)
- California Department of Transportation (Caltrans) – District 12
- California Department of Fish and Wildlife (CDFW) – South Coast Region 5

2.2.2 Areas of Controversy and Scoping Comments

Issues and concerns raised in response to the NOP or at the scoping meeting included:

- **Equity:** Request to consider providing a discussion of social equity in the General Plan Housing Element updates, such as consideration of potential actions that could be taken to assist in providing new housing opportunities to communities of color and underserved communities through the removal of structural barriers to home ownership.
- **Traffic:** Request to consider providing a discussion about the City’s existing multimodal mobility strategies and opportunities to encourage multimodal transportation. Request to consider including a discussion on incorporating designated areas/parking for freight delivery, package, designating areas/parking for freight delivery, and to consider including a discussion on potential impacts to the Circulation Element from freight traveling into, from, and through the City as a result of the General Plan Element updates. Request that the proposed Project evaluated for consistency with the adopted Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and its goals.
- **Biological Resources:** Request for the proposed Project design to be in alignment with the County of Orange Central and Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). Request to provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources for related subsequent housing projects.
- **Open Space:** Recommendation to maximize open space when planning future housing projects.
- **Tribal Cultural Resources:** Recommendation for consultation with California Native American tribes that are traditionally and culturally affiliated with Laguna Woods.
- **Schools:** Request to evaluate the potential impact of the Project on Saddleback Valley Unified School District schools and potential impacts on school capacity and possible overcrowding.
- **Safety:** Recommendation to review the applicability of revising the City’s General Plan Safety Element after having updated the Housing Element to include more information about wildfire risks and safety, information related to flood hazards, climate adaptation, and resiliency strategies applicable to the City.

This is not an exhaustive list of areas of controversy, but rather key issues that were raised during the scoping process. This PEIR addresses each of these areas of concern or controversy in detail as appropriate, examines project-related and cumulative environmental impacts, identifies significant

adverse environmental impacts, and proposes mitigation measures and/or alternatives designed to reduce or eliminate potentially significant impacts. Appendix A to this PEIR includes the NOP and copies of written comments received in response to the NOP.

2.2.3 EIR Public Review Period

This PEIR is being distributed to numerous public agencies and other interested parties for review and comment. This PEIR is also available at the following locations and on the City's website for the proposed Project (<https://www.cityoflagunawoods.org>) Additionally, a copy of this PEIR will be available for public review at Laguna Woods City Hall, by appointment only. Please contact Yolie Trippy, City Clerk, City of Laguna Woods, at (949) 639-0500 to schedule an appointment.

All comments received from agencies and individuals on this PEIR will be accepted during the public comment period, which will not be less than 45 days, in compliance with CEQA and the *State CEQA Guidelines*. All comments on this PEIR should be sent to the following City contact person:

Christopher Macon, City Manager
City of Laguna Woods
24264 El Toro Road
Laguna Woods, CA 92637
Phone: (949) 639-0500
Email: cityhall@cityoflagunawoods.org

Following the close of the public comment period, the City will prepare written responses to all written comments received during the public comment period and will compile these comments and responses, together with any text changes to this PEIR, into a Final EIR that includes all of the information required pursuant to *State CEQA Guidelines* Section 15132. The Final EIR will be provided to all public agencies that submitted comments on this PEIR at least 10 days prior to certification of the Final EIR. The Final EIR shall consist of the PEIR or a revision of the draft; comments and recommendations received on the PEIR either verbatim or in summary; a list of persons, organizations, and public agencies commenting on the PEIR; the response of the City to significant environmental points raised in the review and consultation process and in comments submitted on the Draft PEIR; and any other information added by the City.

The City will make findings regarding the extent and nature of the impacts as presented in the Final EIR. The Final EIR must be certified as complete by the City Council prior to making a decision on the proposed Project. Public input is encouraged at all public hearings regarding the proposed Project.

2.3 SCOPE OF THIS PEIR

As required by *State CEQA Guidelines* Section 15128, this PEIR must identify the effects of the proposed Project that are determined to be significant. Environmental topics addressed in this PEIR include: Aesthetics; Air Quality; Energy; Greenhouse Gas Emissions; Land Use and Planning; Noise; Population and Housing; Public Services; Recreation; Transportation and Traffic; and Utilities and Service Systems.

The following section explains that the proposed Project would result in no impacts or less than significant impacts related to the following topics: Agricultural Resources, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology, Mineral Resources, Tribal Cultural Resources, and Wildfire. These topics are not addressed further in this PEIR.

2.3.1 Topics Not Addressed in This PEIR

2.3.1.1 Agricultural Resources

According to the California Important Farmland Finder, the City of Laguna Woods is in an area classified as Urban and Built-Up Land and is not designated as farmland. Additionally, there are no agricultural or resource extraction uses located in the City. There are no lands within the City that are zoned for agricultural uses, forest land, timberland, or timberland production. Further, none of the land within the City is subject to a Williamson Act contract. Therefore, the proposed Project would not result in any impacts to agricultural resources.

The proposed Project includes text changes in the Land Use Element. These text changes are necessary to provide internal consistency between General Plan elements and would not facilitate or entitle any physical development that would result in impacts to agricultural resources. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development that would result in impacts to agricultural resources. Therefore, the Noise Element update would have no impact on agricultural resources, and no mitigation is required. The Project includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet state law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on agricultural resources. As mentioned earlier, the City of Laguna Woods is built-out and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network. Therefore, the introduction of the Mobility Element as an update to the Circulation Element would have no impact on agricultural resources, and no mitigation is required.

2.3.1.2 Biological Resources

Future development implemented in accordance with the proposed overlay zoning districts may require subsequent project-specific environmental evaluation to determine whether any impacts to biological resources including candidate, sensitive, or special-status species, riparian habitats, or wetlands would be potentially significant. It should be emphasized that the Potential Housing Sites are located on parcels in fully developed urban areas. The Potential Housing Sites, which include

such existing uses as commercial centers, houses of worship, self-storage facilities, and medical buildings are not located near the biological resource areas of concern raised in the comment letter from the CDFW. None of the Potential Housing Sites are located near the Orange County Central Coastal NCCP/HCP conservation lands nor the Aliso Creek Corridor. The Potential Housing Sites are concentrated in the central portion of the City, near the intersection of El Toro Road and Moulton Parkway. Some of the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are near the resources identified; however, the proposed land use designation and zoning changes would not allow additional development but are simply being made to correctly correlate the existing land use to the appropriate general plan land use designation and zoning district. Additionally, future development would be required to comply with the City's tree maintenance and removal standards.

As discussed above, the proposed Project includes text changes to the Circulation, Land Use, and Noise Elements of the City's General Plan and would rename the General Plan Circulation Element to the Mobility Element. None of these text changes would facilitate or entitle any physical development that would result in impacts to biological resources. Further, the Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on biological resources. Therefore, the proposed Project would not result in impacts to biological resources, and no mitigation is required.

2.3.1.3 Cultural Resources

Three of the Potential Housing Sites identified in Table 3.A of Chapter 3.0 (Sites 10, 11, and 14) contain buildings that appear to be potentially significant for their architecture and/or as the work of a master architect. These buildings are the Lutheran Church of the Cross, the Geneva Presbyterian Church, and the Laguna Country United Methodist Church (see Appendix D, Historic Period Built Environment Sensitivity Study). At such time that a future development proposal is considered, that development project would be subject to adopted development guidelines/standards and the State Historical Building Code, which has been adopted by the City of Laguna Woods (Laguna Woods Municipal Code Chapter 10.36, Ordinance 22-03, adopted 11/16/2022). The code requires consideration of potential historic resources during the development review process and provides alternative regulations and standards for the rehabilitation, preservation, restoration, or relocation of qualified historical buildings or structures. The proposed zoning overlay districts included in the proposed Project do not identify the locations of future residential units on Sites 10, 11, and 14 and how those units would relate to the three buildings that may have historical significance. The development application review process would be the appropriate time to evaluate how any residential development would relate to the historical setting and resource. With implementation of Mitigation Measure CR-1 from the City's General Plan EIR, the proposed Project would result in less than significant impacts during mitigation.

Mitigation Measure CR-1 in the City's General Plan EIR contains the following language:

The City shall prepare a "Development Project Review Procedure Manual" that will include development project level impacts measures as indicated in EIR Section 4.11.5.

The City implemented this mitigation measure as it applies to potential historical structures by adopting the California Historical Building Code (City of Laguna Woods Municipal Code Section 10.36.010). This section of the Municipal Code regulates the preservation, restoration, rehabilitation, relocation, or reconstruction of buildings or properties designated as qualified historical buildings or properties.

As discussed above, the proposed Project includes text changes to the Circulation, Land Use, and Noise Elements of the City's General Plan and would rename the General Plan Circulation Element to the Mobility Element. None of these text changes would facilitate or entitle any physical development that would result in impacts to cultural resources. Further, the Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on cultural resources. Therefore, the Land Use, Noise, and Circulation Element updates would have no impact on cultural resources, and no further mitigation is required.

2.3.1.4 Geology and Soils

Future development implemented in accordance with the proposed zoning overlay and updated land use designations would continue to be required to adhere to the California Building Code (CBC) and other standards and regulations for building designs. Any potential impacts resulting from ground shaking, ground failure, landslides, and liquefaction hazards would be addressed through compliance with existing codes and adherence with the recommendations of project-specific geotechnical reports, when required, including engineered site preparation and adequate structural design. Any proposed construction would be required to implement appropriate engineering design in conformance with the recommended geotechnical standards for construction, and would be required to adhere to all State and local requirements for avoiding and minimizing impacts to paleontological resources. As discussed above, the proposed Project includes text changes to the Circulation, Land Use, and Noise Elements of the City's General Plan and would rename the General Plan Circulation Element to the Mobility Element. None of these text changes would facilitate or entitle any physical development that would result in impacts related to geology and soils. Further, the Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have potential impacts related to geology and soils. Therefore, the proposed Project would result in no impacts to geology and soils, and no mitigation is required.

2.3.1.5 Hazards and Hazardous Materials

At such time when future development proposals are considered, those development projects would be subject to adopted development guidelines/standards, including applicable fire department and emergency personnel access requirements. This review would need to be based on the actual building layout and proposed internal circulation patterns. Additionally, the City of Laguna Woods does not contain any sites that are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and therefore, the Project would result in no impacts related to the creation of a significant hazard to the public or environment. There are no public or private airports located within the City's limits, and therefore, the Project would not result in a safety hazard or excessive noise for people residing or working in the City. As discussed above, the proposed Project includes text changes to the Circulation, Land Use, and Noise Elements of the City's General Plan and would rename the General Plan Circulation Element to the Mobility Element. None of these text changes would facilitate or entitle any physical development that would result in

impacts related to hazards and hazardous materials. Further, the Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have potential impacts related to hazards and hazardous materials. Therefore, the proposed Project would result in no impacts from hazards and hazardous materials, and no mitigation is required.

2.3.1.6 Hydrology

If a project proposes to disturb more than 1 acre of soil, the State requires that a Storm Water Pollution Prevention Plan (SWPPP), which includes Best Management Practices (BMPs), be prepared. Future housing development facilitated by the proposed Project would be required to incorporate features that would reduce impervious area, as feasible, and promote water infiltration. Redevelopment of already developed sites requires compliance with water quality standards intended to reduce runoff, increase infiltration, and improve water quality. If any of the Potential Housing Sites were redeveloped, they would occur on already urbanized land which was built upon prior to current requirements regarding low impact development (LID). LID focuses on reducing urban run-off and protecting downstream receiving waters. The BMPs need to be designed in coordination with actual building footprints and site knowledge regarding extent of impervious area and LID options appropriate for the setting. Increased water use would not substantially affect groundwater supplies because the water supply portfolio for the El Toro Water District (ETWD), the water service provider for all of the Potential Housing Sites, does not include groundwater. Therefore, future development facilitated by the proposed Project would not impede sustainable management of the local groundwater basin.

Future development may be subject to site-specific environmental studies as determined by the City and would comply with applicable policies related to hydrology and water quality issues, including the requirements of the Federal Water Pollution Control Act as enforced by the State Water Resources Control Board, which requires compliance with the National Pollutant Discharge Elimination System (NPDES) permit for construction runoff and long-term urban runoff. Future housing development would be required to adhere to all federal, State, and local requirements for avoiding construction and operations impacts that could substantially alter the existing drainage pattern or alter the course of a stream or river. Additionally, Laguna Woods is not located within an inundation zone of a seiche or tsunami, although National Flood Insurance Program (NFIP)-designated Special Flood Hazard Areas (SFHAs) comprise approximately 26 acres of the City with an additional 2,115 acres designated as either minimal or moderate risk (Zone X). At such time when future development proposals are considered, those projects would be subject to adopted development guidelines/standards to minimize flood risk.

Future development facilitated by the proposed Project may be required to incorporate features that would reduce impervious area, as feasible, and promote water infiltration. Treatment control and hydromodification management facilities could promote retention and infiltration of stormwater. As discussed above, the proposed Project includes text changes to the Circulation, Land Use, and Noise Elements of the City's General Plan and would rename the General Plan Circulation Element to the Mobility Element. None of these text changes would facilitate or entitle any physical development that would result in impacts related to hydrology. Further, the Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have

potential impacts related to hydrology. Therefore, the proposed Project would result in no impacts to hydrology, and no mitigation is required.

2.3.1.7 Mineral Resources

According to the City's General Plan Conservation Element, the Mineral Resource Zones (MRZs) that are present in the City are classified as either MRZ-1 or MRZ-3, meaning they are areas where no significant mineral deposits are present or little likelihood exists for their presence. Further, according to Table VI-1 of the Orange County General Plan Resources Element, the only sites with mineral resources in the County occur in areas near the Santa Ana River, lower Santiago Creek, upper Santiago Creek, San Juan Creek, and Arroyo Trabuco. None of these 5 locations are located within the City of Laguna Woods. There are also no active mines, oil fields, oil wells, or underground gas storage facilities mapped within the City of Laguna Woods. Additionally, the City is urbanized and there are no resource extraction uses located in the City. As discussed above, the proposed Project includes text changes to the Circulation, Land Use, and Noise Elements of the City's General Plan and would rename the General Plan Circulation Element to the Mobility Element. None of these text changes would facilitate or entitle any physical development that would result in impacts related to mineral resources. Further, the Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have potential impacts related to mineral resources. Therefore, the proposed Project would result in no impacts to mineral resources, and no mitigation is required.

2.3.1.8 Tribal Cultural Resources

As a part of the proposed Project, the City sent Assembly Bill (AB) 52 and Senate Bill (SB) 18 notification letters to local Native American groups on July 22, 2022. The Agua Caliente Band of Cahuilla Indians and the Quechan Indian Tribe responded on August 16 and August 4, 2022, respectively, stating that they have no comments regarding the proposed Project.

The City sent a second round of AB 52/SB 18 notification letters to the same Native American groups on November 30, 2023, providing an additional opportunity for the tribes to consult with the City regarding the proposed project. The Gabrieleno Band of Mission Indians – Kizh Nation responded on December 12, 2023, requesting to initiate formal consultation. Upon being informed by the City that the proposed Project would not involve any ground disturbance activities, the Tribe stated that it had no further concerns on March 11, 2024. However, the Tribe requested notification regarding future projects within the City involving ground-disturbing activities.

Based on the discussion above, and because it does not entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development, the proposed Project would not result in impacts to tribal cultural resources, and no mitigation is required.

2.3.1.9 Wildfire

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zones Map² and Figure S-1 of the City's General Plan Safety Element, the City contains very

² California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fire Hazard Severity Zone Viewer. Website: <https://egis.fire.ca.gov/FHSZ/> (accessed October 14, 2022).

high fire hazard zones along its western boundary. Additionally, the Safety Element identifies high and moderate high fire hazard severity zones. None of the Potential Housing Sites are located within any of the fire hazard severity zones identified by the State or the City's General Plan. The proposed updates to the City's Circulation, Land Use, and Noise Elements as well as the renaming of the City's Circulation Element would not impede the City's ability to implement adopted goals and related policies for the protection and emergency readiness of residents, businesses, and government function due to wildfire hazards because they do not consist of any physical improvements or construction and they do not contain any amendments to policies, programs, or designations related to emergency preparedness. Therefore, the proposed Project would have no impacts related to wildfire, and no mitigation is required.

2.4 FORMAT OF THE EIR

This PEIR contains the information and analysis required by CEQA and the *State CEQA Guidelines*, including Sections 15122–15131, and is generally organized as follows:

- **Chapter 1.0: Executive Summary.** Chapter 1.0 contains the Executive Summary of this PEIR, which lists all significant project impacts, feasible mitigation measures that have been recommended to reduce any significant impacts of the proposed Project, and the level of significance of each impact following feasible mitigation. The summary is presented in a table format.
- **Chapter 2.0: Introduction.** Chapter 2.0 contains a discussion of the purpose and intended use of this PEIR.
- **Chapter 3.0: Project Description.** Chapter 3.0 includes: a discussion of the proposed Project's geographical setting; the existing uses and the existing and proposed land use designations and zoning districts on the Potential Housing Sites and the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses; a brief description of the proposed updates to the Land Use, Circulation, and Noise Elements, the proposed Project's objectives, as well as the anticipated discretionary approvals for the proposed Project.
- **Chapter 4.0: Environmental Impact Analysis.** Chapter 4.0 includes an analysis of the proposed Project's environmental impacts. It is organized into the following topical sections: aesthetics, air quality, greenhouse gas emissions, land use and planning, noise, population and housing, public services, recreation, transportation, and utilities and service systems. The environmental setting discussions describe the "existing conditions" of the environment within the City as they pertain to the environmental issues being analyzed (CEQA Guidelines Section 15125).

The impact discussions identify and focus on the potentially significant environmental effects of the proposed Project. The direct and indirect effects of the proposed Project on the environment are identified and described, giving due consideration to both the short-term and long-term effects, as necessary (CEQA Guidelines Section 15126.2[a]).

Chapter 4.0 also includes within the analysis of each environmental topic a discussion of the cumulative effects of the proposed Project when considered in combination with other projects causing related impacts, as required by *State CEQA Guidelines* Section 15130. Cumulative

impacts are based on the build out of the proposed Project and the known relevant approved and proposed projects in the surrounding area.

The discussions of mitigation measures identify and describe feasible measures that could minimize or lessen potentially significant impacts for each significant environmental effect identified in this PEIR (CEQA Guidelines Section 15126[e]). The levels of significance before and after mitigation are provided. Significant unavoidable adverse effects are identified where mitigation is not expected to reduce the effects to less than significant levels.

- **Chapter 5.0: Alternatives to the Proposed Project.** In accordance with CEQA, the alternatives discussion in Chapter 5.0 describes a reasonable range of alternatives that could feasibly attain the basic objectives of the proposed Project and are capable of eliminating or substantially reducing any of the proposed Project’s significant adverse environmental effects or reducing them to a less than significant level. The alternatives analyzed in Chapter 5.0 include two alternatives: (1) the No Project Alternative, and (2) the Reduced Density Alternative.
- **Chapter 6.0: Other CEQA Considerations.** Chapter 6.0 contains discussions on the following topics as required by *State CEQA Guidelines* Section 15126: (1) growth-inducing impacts of the proposed Project; and (2) whether there are any significant irreversible environmental changes caused by the proposed Project, adverse environmental impacts associated with the proposed Project for which either no mitigation or only partial mitigation is feasible.
- **Chapter 7.0: Mitigation Monitoring and Reporting Program.** *State CEQA Guidelines* Section 15091(d) requires that public agencies adopt a mitigation monitoring and reporting program for any changes that it has either required in a project or made a condition of approval to avoid or substantially lessen significant environmental effects. Chapter 7.0 provides a list of all proposed Project mitigation measures, defines the parties responsible for implementation and review, and identifies the timing for implementation of each mitigation measure.
- **Chapter 8.0: List of Preparers.** Chapter 8.0 provides the organizations and persons contacted during preparation of this PEIR, the PEIR preparers and technical report authors, and other experts involved in the preparation of this PEIR.
- **Chapter 9.0: References.** Chapter 9.0 provides the references used in this PEIR.

2.5 INCORPORATION BY REFERENCE

An EIR may incorporate by reference all or portions of another document that is a matter of public record or is generally available to the public, consistent with *State CEQA Guidelines* Section 15150. Informational details from the documents that have been incorporated by reference are summarized in the appropriate sections of this PEIR, along with descriptions regarding how the public may review these documents. All documents are available for review at the City of Laguna Woods, City Hall. These documents include:

- City of Laguna Woods General Plan (available online at: <https://www.cityoflagunawoods.org/government/general-plan/>)
- City of Laguna Woods Municipal Code (available online at: [cityoflagunawoods.org/government/municipal-code/](https://www.cityoflagunawoods.org/government/municipal-code/))

3.0 PROJECT DESCRIPTION

This section describes the proposed Laguna Woods General Plan and Zoning Code Update (proposed Project) that is evaluated in this Program Environmental Impact Report (PEIR). A description of the proposed Project’s background and purpose, location and environmental setting, objectives, General Plan and Zoning Code amendments, and required approvals is provided below.

3.1 PROJECT BACKGROUND AND PURPOSE

All cities and counties in the State of California must adopt a “comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency’s judgment bears relation to its planning” (California Government Code 65300). General plans help guide the city or county by establishing policies and goals to inform future land use decisions. The City of Laguna Woods (City) General Plan was adopted in October 2002 after the City was incorporated in March 1999. The City’s General Plan includes the following Elements: Circulation; Conservation; Housing; Land Use; Noise; Open Space; and Safety.

The City prepared the City of Laguna Woods 2021–2029 General Plan Housing Element Update for the 6th Cycle Planning Period (Housing Element Update) and also prepared an Initial Study/Negative Declaration (IS/ND) consistent with California Environmental Quality Act (CEQA) and the *State CEQA Guidelines* in order to evaluate the potential environmental impacts that may result from implementation of the Housing Element Update. The City Council adopted the Housing Element Update on August 16, 2023. In compliance with Government Code Section 65583(a)(3), the Housing Element Update identified 17 potential sites that were suitable for residential development, including 1 vacant site and 16 sites having the potential for redevelopment (these sites are referred to as the Potential Housing Sites in this PEIR). The Housing Element Update recommended the creation of four new overlay zoning districts that would allow housing development on the Potential Housing Sites in addition to the uses already allowed under the existing zoning on those properties. In addition to the adoption of new overlay zoning districts on the Potential Housing Sites, the proposed Project includes minor administrative amendments to the existing General Plan land use designations and zoning at 12 additional locations in the City to make the land use designations and zoning better correlate to the existing uses on those sites (these locations are referred to as the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses in this PEIR).

Following the City Council’s approval of the Housing Element Update, State law requires that the City update its General Plan and Zoning Code to be consistent with its new Housing Element. The proposed Project would ensure that relevant provisions of the City’s General Plan and Zoning Code comply with the recently adopted Housing Element Update. To accomplish this, the City proposes to update its General Plan Circulation, Land Use, and Noise Elements to be consistent with its Housing Element, update background and existing condition information, update the identification of priority issues, update goals and policy objectives, and make other changes intended to modernize the documents while also promoting clarity and ease of use. In addition, the proposed Project would rename the City’s existing Circulation Element to the Mobility Element.

3.2 PROJECT LOCATION AND EXISTING ENVIRONMENTAL SETTING

3.2.1 Regional Location

The City of Laguna Woods is located in the southern portion of Orange County within Southern California. As shown in Figure 3-1, Regional Location, the City of Laguna Woods is bordered on the north, east, and southeast by the City of Laguna Hills, on the northwest by the City of Irvine, on the west by unincorporated Orange County and the City of Laguna Beach, and on the south by the City of Aliso Viejo. According to the United States Census Bureau, the City of Laguna Woods has a total area of 3.3 square miles. Regional access to the City is provided via Interstate 5 (I-5), which is located along the northeastern boundary of the City, and State Route 73 (SR-73), which is located approximately 0.5 mile southwest of the City's southwestern boundary.

3.2.2 Existing Project Area Conditions

Laguna Woods began as a retirement community with the development of Leisure World (now known as Laguna Woods Village) in the 1960s. The City is unique in that nearly all of its existing residential uses are age-restricted for adults aged 55 years and older. Of the 13,386 dwelling units in the City of Laguna Woods, 12,736 are located in the gated community of Laguna Woods Village, which represents 80 percent of the City's total land area. Four other residential communities (Ivy Park at Laguna Woods [formerly The Regency], Ivy Park at Wellington [formerly Las Palmas], San Sebastian, and Whispering Fountains) provide an additional 650 dwelling units in the City.

The majority of the City's commercial and institutional uses are situated along El Toro Road and Moulton Parkway within 0.4 mile of the point where the two streets intersect. Two smaller retail nodes are located at the El Toro Road and Paseo de Valencia intersection and at the Moulton Parkway and Ridge Route Drive intersection. The City is now almost completely built out and contains very limited undeveloped land.

3.2.3 Environmental Setting of the Potential Housing Sites and Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses



The locations of the Potential Housing Sites are shown in Figure 3-2, Potential Housing Sites and Sites Proposed for Land Use Designation Changes and Rezoning, generally consist of commercial and community facilities land uses. Figure 3-2 also shows the locations of the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. The Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses consist of properties that are owned by the City, the Golden Rain Foundation, and the El Toro Water District and currently used as community facilities or open space. Table 3.A, below, provides a description of each of the Potential Housing Sites and Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, their existing use and assessor's parcel number (APN), address, existing and proposed land use designations, and existing and proposed zoning district or overlay zoning.

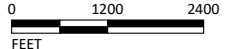


FIGURE 3.1

LSA

LEGEND

-  City of Laguna Woods
-  City Boundary



SOURCE: Google Maps (2020)
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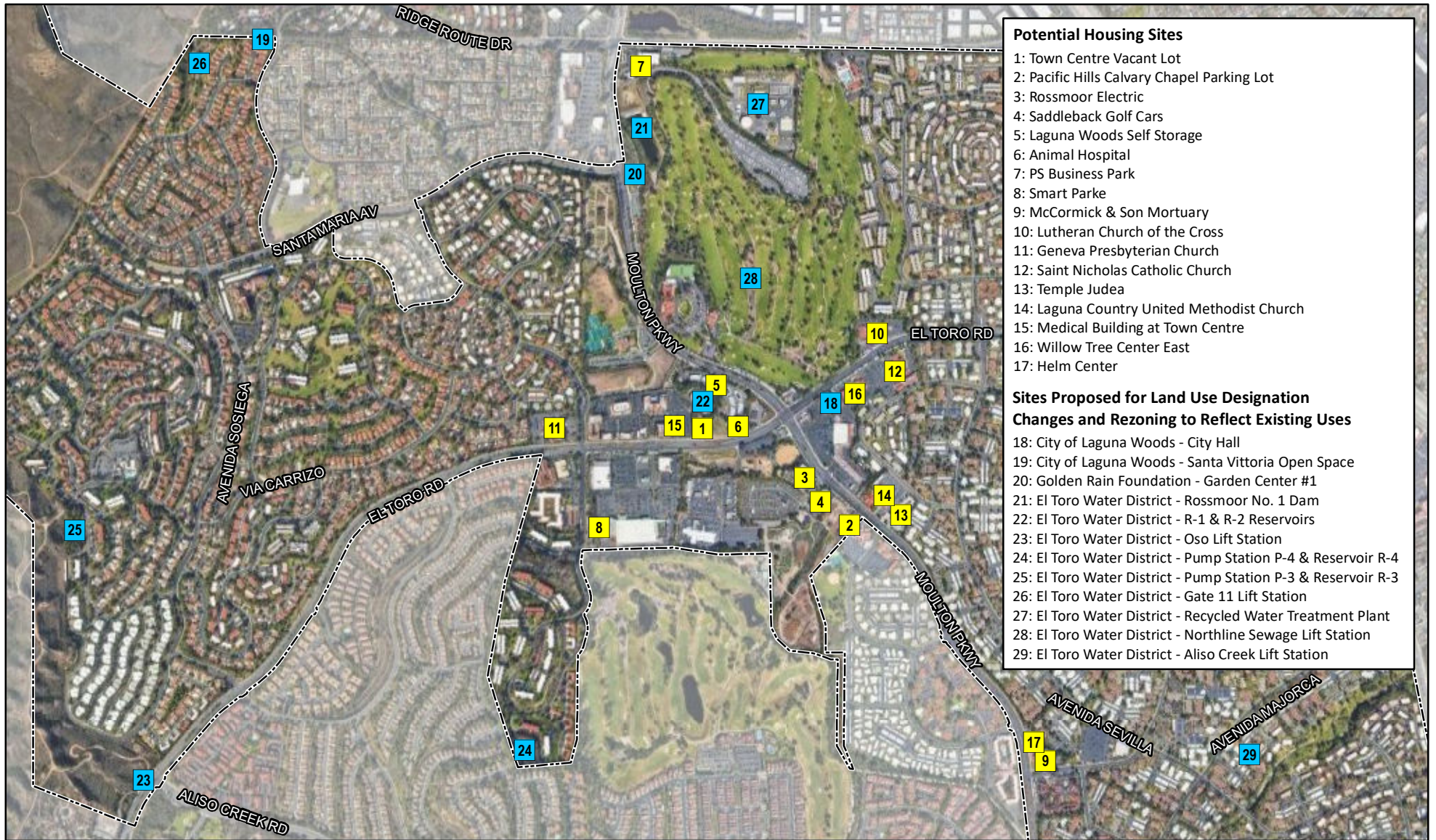


FIGURE 3.2

LSA

LEGEND

- Potential Housing Sites
- Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses
- City of Laguna Woods



SOURCE: Google Maps (2022)

I:\LWD2102.03\GIS\MXD\Key_Map.mxd (11/15/2023)

Laguna Woods General Plan and Zoning Code Update
 Potential Housing Sites and Sites Proposed
 for Land Use Designation Changes and
 Rezoning to Reflect Existing Uses

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Table 3.A: Site Descriptions

Site	Existing Use (APN)	Address	Existing Land Use Designation	Proposed Land Use Designation	Existing Zoning District	Proposed Zoning District
Potential Housing Sites						
1	Town Centre Vacant Lot (616-012-29)	N/A (East of 24331 El Toro Road)	Commercial	<i>No Change</i>	Community Commercial	Residential High Density Overlay
2	Pacific Hills Calvary Chapel Parking Lot (621-131-38)	24481 Moulton Parkway	Commercial	<i>No Change</i>	Professional & Administrative Office	Residential High Density Overlay
3	Rossmoor Electric (621-131-21)	24351 Moulton Parkway	Commercial	<i>No Change</i>	Community Commercial	Residential High Density Overlay
4	Saddleback Golf Cars (621-131-26)	23252 Via Campo Verde	Commercial	<i>No Change</i>	Community Commercial	Residential High Density Overlay
5	Laguna Woods Self Storage (616-012-19)	24151 Moulton Parkway	Commercial	<i>No Change</i>	Community Commercial	Residential High Density Overlay
6	Animal Hospital (616-012-03)	24271 El Toro Road	Commercial	<i>No Change</i>	Community Commercial	Residential High Density Overlay
7	PS Business Park (616-021-30)	23582 Moulton Parkway	Commercial	<i>No Change</i>	Community Commercial	Residential High Density Overlay
8	Smart Parke (621-211-09)	24334 El Toro Road	Commercial	<i>No Change</i>	Community Commercial	Residential High Density Overlay
9	McCormick & Son Mortuary (621-091-016)	25002 Moulton Parkway	Commercial	<i>No Change</i>	Community Commercial	Residential Medium-Low Density Overlay
10	Lutheran Church of the Cross (616-041-01)	24231 El Toro Road	Community Facilities	<i>No Change</i>	Community Facilities-Private	Residential Medium-Low Density Overlay
11	Geneva Presbyterian Church (616-191-05 & 616-191-06)	24301 El Toro Road	Community Facilities	<i>No Change</i>	Community Facilities-Private	Residential Medium-Low Density Overlay
12	Saint Nicholas Catholic Church (621-121-11)	24252 El Toro Road	Community Facilities	<i>No Change</i>	Community Facilities-Private	Residential Medium-Low Density Overlay
13	Temple Judea (621-121-18)	24512 Moulton Parkway	Community Facilities	<i>No Change</i>	Community Facilities-Private	Residential Low Density Overlay
14	Laguna Country United Methodist Church (621-121-23)	24442 Moulton Parkway	Community Facilities	<i>No Change</i>	Community Facilities-Private	Residential Medium Density Overlay
15	Medical Building in Town Centre (616-012-24)	24331 El Toro Road	Commercial	<i>No Change</i>	Professional & Administrative Office	Residential High Density Overlay
16	Willow Tree Center East (621-121-30)	24260 El Toro Road	Commercial	<i>No Change</i>	Community Commercial	Residential Low Density Overlay

Table 3.A: Site Descriptions

Site	Existing Use (APN)	Address	Existing Land Use Designation	Proposed Land Use Designation	Existing Zoning District	Proposed Zoning District
17	Helm Center (621-091-15)	24902 Moulton Parkway	Commercial	<i>No Change</i>	Professional & Administrative Office	Residential Medium-Low Density Overlay
Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses						
18	City of Laguna Woods - City Hall (621-121-29)	24264 El Toro Road	Commercial	Community Facilities	Community Commercial	Community Facilities-Public/Institutional
19	City of Laguna Woods - Santa Vittoria Open Space (616-351-06)	N/A (West of San Remo & Santa Vittoria)	Residential Community	Open Space	Residential Community	Open Space-Passive
20	Golden Rain Foundation - Garden Center #1 (616-021-18)	23742 Moulton Parkway	High Density Residential	Open Space	Residential Multifamily	Open Space-Recreation
21	El Toro Water District - Rossmoor No. 1 Dam (616-021-33)	23600 Moulton Parkway	Open Space	Community Facilities	Open Space-Recreation	Community Facilities-Public/Institutional
22	El Toro Water District - R-1 & R-2 Reservoirs (616-012-02)	24141 Moulton Parkway	Commercial	Community Facilities	Community Commercial	Community Facilities-Public/Institutional
23	El Toro Water District - Oso Lift Station (622-071-21)	N/A (Intersection of El Toro Road & Aliso Creek Road)	Open Space	Community Facilities	Open Space-Passive	Community Facilities-Public/Institutional
24	El Toro Water District - Pump Station P-4 & Reservoir R-4 (621-201-06 & 621-201-07)	N/A (off Calle Sonora Oeste, behind buildings)	Residential Community	Community Facilities	Residential Community	Community Facilities-Public/Institutional
25	El Toro Water District - Pump Station P-3 & Reservoir R-3 (622-061-11)	N/A (North of Avenida Sosiega & Bahia Blanca West)	Residential Community	Community Facilities	Residential Community	Community Facilities-Public/Institutional
26	El Toro Water District - Gate 11 Lift Station (616-351-04)	N/A (San Remo & Santa Vittoria)	Residential Community	Community Facilities	Residential Community	Community Facilities-Public/Institutional
27	El Toro Water District - Recycled Water Treatment Plant (616-021-03)	23542 Moulton Parkway	Open Space	Community Facilities	Open Space-Recreation	Community Facilities-Public/Institutional
28	El Toro Water District - Northline Sewage Lift Station (616-021-05 & 616-021-35)	23201 Ridge Route Drive	Open Space	Community Facilities	Open Space-Recreation	Community Facilities-Public/Institutional
29	El Toro Water District - Aliso Creek Lift Station (621-101-18)	24091 Avenida Sevilla	Residential Community	Community Facilities	Residential Community	Community Facilities-Public/Institutional

3.3 PROJECT OBJECTIVES

In conformance with *State CEQA Guidelines* Section 15124, the following primary objectives support the Project's purpose, assist the Lead Agency in developing a reasonable range of alternatives to be evaluated in this PEIR, and ultimately aid the decision-makers in preparing findings and overriding considerations, if necessary. The Project's purpose is to update the City's General Plan and Zoning Code to address the City's housing needs and meet State law requirements and reflect logical land use designations and zoning districts. The following Project objectives are provided to support this purpose:

1. **Enhanced Housing Choices.** The Project is intended to accommodate a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably priced housing for all income groups.
2. **Adequate Housing Supply.** The Project would amend the City's General Plan and Zoning Code to provide adequate potential housing sites with corresponding density to meet the City's Regional Housing Needs Assessment (RHNA) allocation of 997 housing units, inclusive of prior planning cycle carryover housing units. The Project would also include a 199-dwelling-unit buffer sufficient to accommodate the RHNA during the entire planning period given the requirements of the "no net loss" statute. The Project would accommodate the appropriate distribution of new multi-family housing throughout the City.
3. **Community Character, Health, and Safety.** The Project would permit well-designed in-fill development that protects and enhances the quality of life and character of established neighborhoods and promotes healthy and safe living environments.
4. **Multi-modal Transportation.** The Project would decrease reliance on the automobile and encourage active lifestyles through policies and in-fill development that increase the safety, convenience, and integration of multiple transportation modes.
5. **Minimization of Noise Sources.** The Project would minimize exposure of sensitive noise receptors to the detrimental effects of excessive noise from new development by incorporating noise considerations into land use planning decisions.

3.4 PROJECT DESCRIPTION

The proposed Project evaluated in this PEIR includes the updates to the Circulation, Land Use, and Noise Elements of the City's General Plan, renaming of the Circulation Element to the Mobility Element, and amendments to the City's Zoning Code. The Project is described in greater detail below.

3.4.1 General Plan Land Use Element

As shown in Table 3.A, the proposed Project would not change the General Plan land use designations on any of the Potential Housing Sites. Instead, as discussed further below, the Project would apply one of four new residential overlay zoning districts on each of the Potential Housing Sites. The proposed Project would amend the land use designations on the 12 Sites Proposed for

Land Use Designation Changes and Rezoning to Reflect Existing Uses (14 individual properties), which are owned by the City, the Golden Rain Foundation, and the El Toro Water District. Of these, the land use designations on 12 parcels would be changed from Commercial, Open Space, or Residential Community to Community Facilities. Land use designations on the other two properties would be changed from Residential Community and High Density Residential to Open Space. As described above, these minor administrative changes are intended to reflect the reality that these properties are currently being used as open space or community facilities and will continue to be used for those purposes for the foreseeable future.

3.4.2 General Plan Circulation Element

The proposed Project includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads. The Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network.

3.4.3 General Plan Noise Element

The proposed Project would also update the noise contour maps in the Noise Element to reflect current noise conditions in the City as well as those anticipated under General Plan buildout.

3.4.4 Zoning Code Amendment

As shown in Table 3.A, the proposed Project includes the adoption of four new overlay zoning districts that would allow for residential development on the Potential Housing Sites. Development standards would be established for each of the new overlay zoning districts. Of the 17 Potential Housing Sites, nine sites (Sites 1–8 and Site 15) would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per acre (du/ac). Five sites (Sites 9–12 and Site 17) would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites (Sites 13 and 16) would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and Site 14 would be within the Residential Medium Density Overlay, which would allow between 20–30 du/ac.

The proposed Project would also amend the zoning districts on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. As described in Table 3.A, the existing zoning districts on two sites (Sites 18 and 22) would be changed from Community Commercial to Community Facilities-Public/Institutional. Four sites (Sites 24–26 and Site 29) would be changed from Residential Community to Community Facilities-Public/Institutional. Four sites (Sites 21, 27, and 28) would be changed from Open Space-Recreation to Community Facilities-Public/Institutional. Lastly, Site 19 would be changed from Residential Community to Open Space-Passive and Site 20

would be changed from Residential Multifamily to Open Space-Recreation. As noted above, these minor administrative changes are intended to reflect the reality that these properties are currently being used as open space or community facilities and will continue to be used for those purposes for the foreseeable future.

3.5 DISCRETIONARY ACTIONS

Amendments to the General Plan Land Use Element, Circulation Element, and Noise Element are being considered pursuant to the City’s Municipal Code and relevant requirements set forth in California Government Code. As part of this review, the City would consider whether the proposed Project is in compliance with State law (Sections 65350–65362 of the California Government Code) requirements. Updates to the Zoning Code are also being considered pursuant to the City’s Municipal Code. As part of this review, the City would consider whether the proposed Project is in compliance with State law (Sections 65800–65863.13 of the California Government Code) requirements. The City Council would confirm that the Final Program EIR addresses the potential environmental effects of the proposed Project, and would certify the Program EIR to satisfy CEQA requirements. There are no other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement) for the proposed Project. Discretionary approvals required for the proposed Project are outlined in Table 3.B, below, and described in the following text.

Table 3.B: Discretionary Approvals

Discretionary Action	Agency Responsible
Amendments to the General Plan Land Use Element, Circulation Element, and Noise Element for the City of Laguna Woods	Laguna Woods City Council
Amendments to the Zoning Code for the City of Laguna Woods	Laguna Woods City Council
Certification of this Program EIR	Laguna Woods City Council

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4.0 EXISTING ENVIRONMENTAL SETTING, ENVIRONMENTAL ANALYSIS, IMPACTS, AND MITIGATION MEASURES

The following chapter contains 11 sections, each of which addresses one environmental topic outlined in Appendix G of the Guidelines for the California Environmental Quality Act (*State CEQA Guidelines*) (California Code of Regulations [CCR] Title 14, Chapter 3, Sections 15000–15397).

For each environmental impact issue analyzed, this Draft Program Environmental Impact Report (PEIR) includes a detailed explanation of the existing conditions, thresholds of significance that will be applied to determine whether the proposed Laguna Woods General Plan and Zoning Update Project (proposed Project) impacts are significant, analysis of the environmental impacts, and a determination of whether the proposed project would have a significant impact if implemented. A “significant impact” or “significant effect” means “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (14 CCR 15382). Each environmental topic section in Chapter 4.0 also includes a discussion of the cumulative effects of the project when considered in combination with other projects causing related impacts, as required by Section 15130 of the *State CEQA Guidelines*.

Each of the 11 sections is organized into subsections, as follows:

1. **Introduction** briefly describes the topics and issues covered in the section.
2. **Scoping Process** describes the comment letters received during the public review period of the Notice of Preparation (NOP) that are related to the topic.
3. **Methodology** describes the approach and methods employed to complete the environmental analysis for the issue under investigation.
4. **Existing Environmental Setting** describes the physical conditions that existed at the time the NOP was prepared and distributed that may influence or affect the issue under investigation. This section focuses on physical site characteristics that are relevant to the environmental topic being analyzed.
5. **Regulatory Setting** lists and discusses the laws, ordinances, regulations, and policies that relate to the specific environmental topic and how they apply to the proposed Project.
6. **Thresholds of Significance** provides the thresholds that are the basis of the conclusions of significance, which are based on the criteria in Appendix G of the *State CEQA Guidelines*.
7. **Project Impacts** describes the potential environmental changes to the existing physical conditions that may occur if the proposed Project is implemented. Evidence is presented to show the cause-and-effect relationship between the proposed Project and potential changes in the environment. The exact magnitude, duration, extent, frequency, and range or other parameters of a potential impact are ascertained to the extent feasible to determine whether impacts may be significant. In accordance with CEQA, potential project impacts, if any, are classified as follows for each of the environmental topics discussed in this Draft PEIR.

- a. **Significant Adverse Impact.** Significant adverse impacts are those that cannot be fully mitigated or avoided. If the Project is approved, decision-makers are required to adopt a statement of overriding considerations pursuant to *State CEQA Guidelines* Section 15093 explaining why the Project benefits outweigh the unavoidable adverse environmental effects caused by these significant adverse environmental impacts.
 - b. **Less than Significant Impact with Mitigation Incorporated.** This classification refers to significant environmental impacts that can be feasibly mitigated or avoided. If the project is approved, decision-makers are required to make findings pursuant to *State CEQA Guidelines* Section 15091 that adverse significant impacts have been mitigated to the maximum extent feasible through the implementation of mitigation measures.
 - c. **Less than Significant Impact.** Less than significant impacts are environmental impacts that have been identified but are not significant. No mitigation is required for less than significant impacts.
 - d. **No Impact.** A “no impact” determination is made when the proposed project is found to have no environmental impact.
8. **Level of Significance Prior to Mitigation** describes the significance of potential impacts prior to implementation of mitigation measures.
 9. **Regulatory Compliance Measures (RCMs)** are specific standards imposed by the approving agency and are required of the proposed project to reduce its potential environmental effects. Because these features are regulatory, and therefore required, they do not constitute mitigation measures.
 10. **Mitigation Measures (MMs)** are project-specific measures that would be required for the project to avoid, minimize, rectify, reduce, eliminate, or compensate for a potentially significant adverse impact.
 11. **Cumulative Impacts** refers to potential environmental changes to the existing physical conditions that may occur as a result of project implementation together with all other reasonably foreseeable, planned, and approved future projects producing related impacts. Section 15355 of the *State CEQA Guidelines* defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Cumulative impacts may result from individually minor but collectively significant projects taking place over a period of time. For each of the environmental topics considered in this Draft PEIR, the geographic scope of the cumulative analysis is defined. For example, the geographic scope of the cumulative analysis for potential cumulative hydrology and water quality impacts includes all areas within the defined watershed.
 12. **Level of Significance after Mitigation** describes the significance of potential impacts after implementation of mitigation measures. Potential significant unavoidable impacts are clearly stated in this section.

4.1 AESTHETICS

4.1.1 Introduction

This section evaluates the existing visual and aesthetic resources in Laguna Woods and evaluates the potential for effects on aesthetics that could result from implementation of the proposed Laguna Woods General Plan and Zoning Code Update (proposed Project).

4.1.1.1 Scoping Process

The City of Laguna Woods (City) received 9 comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). None of the comment letters included comments related to Aesthetics.

4.1.2 Methodology

Information regarding the environmental setting for aesthetics in Laguna Woods was determined using aerial imaging data, the Laguna Woods General Plan Environmental Impact Report (2002), the General Plan Land Use Element (2017), and the General Plan Open Space Element (2007). Goals and policies found in the General Plan and information provided by the California Department of Transportation (Caltrans) State Scenic Highway System Map (2018) were used also to determine potential impacts that could result from the implementation of the proposed Project.

4.1.3 Existing Environmental Setting

Laguna Woods is characterized by urban areas and a mix of land uses, including single-family and multifamily residential uses and small concentrations of commercial, office, open space, and community facilities. The City of Laguna Woods is bounded by Laguna Hills on the north, east, and southeast, by Aliso Viejo on the south, by Laguna Beach and unincorporated Orange County on the west, and by Irvine on the northwest. Interstate 5 (I-5) borders the City's northeastern boundary, and State Route 73 (SR-73) is approximately 0.4 mile south of the City.

According to the United States Census Bureau, the City of Laguna Woods is located within the Mission Viejo-Lake Forest-San Clemente, CA Urbanized Area, which also includes the Cities of Aliso Viejo, Dana Point, Laguna Beach, Laguna Hills, Laguna Niguel, Lake Forest, Mission Viejo, Rancho Santa Margarita, San Clemente, and San Juan Capistrano, and the unincorporated communities of Coto de Caza, Ladera Ranch, and Las Flores. As described in *State of California Environmental Quality Act Guidelines (State CEQA Guidelines)* Section 15387 and defined by the United States Census Bureau, an "urbanized area" is a central city or a group of contiguous cities with a population of 50,000 or more people, together with adjacent densely populated areas having a population density of at least 1,000 people per square mile. Because the entire City is located in an urbanized area, the Potential Housing Sites and the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are also located within an urbanized area.

4.1.3.1 Visual Character

Laguna Woods is characterized by its urban and residential nature. It is located at the southeastern edge of the central structural block of the Los Angeles basin, along the northern flank of the San

Joaquin Hills. Over 96 percent of the land area within the City of Laguna Woods is currently developed. Residential uses are located throughout the entire City and mostly along the western, eastern, and southeastern portions of the City, whereas commercial centers and community facilities are concentrated mostly in the center of the City.

As indicated previously, although the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are scattered throughout the City, most of the Potential Housing Sites are concentrated in central Laguna Woods, along Moulton Parkway and El Toro Road. The areas surrounding the Potential Housing Sites contain commercial uses, residential uses, community facilities uses, and recreational open space uses (golf courses and parks). The Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are more dispersed throughout the City. Site 23 is located in the Southern California Edison (SCE) right-of-way near the southwestern boundary of the City where there are currently open space uses. Site 25 is located adjacent to the SCE right-of-way, and Site 29 is located adjacent to Aliso Creek in the southeastern portion of the City. Sites 20, 21, and 28 are located in the open space area in the northeastern portion of the City where the Laguna Woods Village 18-hole golf course is located. The remainder of the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are located in the urban center of the City near residential, commercial, and community facilities uses.

4.1.3.2 Scenic Vistas and Visual Resources

Certain areas in the City are designated as local open space for resource preservation. These spaces serve as places that afford scenic vistas, resource preservation, and wildlife habitat in an otherwise urban setting (City of Laguna Woods 2007). A 10-acre parcel that adjoins El Toro Road at the terminus of Aliso Creek Road and the SCE right-of-way on the southwesterly edge of the City is considered valuable for its relatively undisturbed natural state in an otherwise urban setting. That parcel is owned by the City and leased to the County of Orange for inclusion in the Laguna Coast Wilderness Park. As indicated above, Site 23, which is proposed for land use designation and zoning changes, is located within the SCE right-of-way. Site 25 is also located within the 10-acre parcel adjacent to the SCE right-of-way. However, these changes are providing correlation to the appropriate General Plan and/or zoning designation to reflect existing uses which are part of the Project setting.

Additionally, approximately 178 acres in the western end of the City offer several natural and ecological conservation values as well as scenic qualities that remain unique to the area (City of Laguna Woods 2007). None of the Potential Housing Sites are located within this area of the City.

4.1.4 Regulatory Setting

4.1.4.1 Federal Regulations

No federal policies or regulations pertaining to aesthetics are applicable to the proposed Project.

4.1.4.2 State Regulations

Caltrans Scenic Highway Program. The California Department of Transportation (Caltrans) Scenic Highway Program protects the natural scenic beauty of the State's highways and corridors through its designated Scenic Highways throughout the State. Caltrans defines a Scenic Highway as any

freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Other considerations given to a Scenic Highway designation include how much of the natural landscape a traveler may see and the extent to which visual intrusions degrade the scenic corridor.

There are no eligible or officially designated State scenic highways in the City of Laguna Woods. The nearest eligible State scenic highways are a portion of State Route 1 (SR-1) located approximately 5.5 miles southwest of the City, a portion of State Route 74 (SR-74) located approximately 8.1 miles southeast of the City, and a portion of I-5 located approximately 8.1 miles southeast of the City. The nearest officially designated State scenic highway is a portion of State Route 91 (SR-91) located approximately 17.9 miles northwest of the City (Caltrans 2018).

4.1.4.3 Regional Regulations

No regional policies or regulations pertaining to aesthetics are applicable to the proposed Project.

4.1.4.4 Local Regulations

City of Laguna Woods General Plan Land Use Element. The City of Laguna Woods General Plan is intended to guide future growth and development within the City and is comprised of several elements. The Land Use Element addresses land use planning in the City and provides a framework for the issues examined in the other General Plan elements. Goals and policies related to aesthetics are intended to enhance the City's image and identity and create a sense of community.

The following goals and policies applicable to the proposed Project and related to aesthetics and scenic quality are presented in the Land Use Element:

- **Objective II:** Enhance the value and desirability of properties
 - **Policy II.A:** Develop a strategy for promoting excellence in property maintenance and building design.

4.1.5 Thresholds of Significance

The thresholds for aesthetics impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the City's *Local Guidelines for Implementing the California Environmental Quality Act (Local CEQA Guidelines)*. The proposed Project may be deemed to have a significant impact with respect to aesthetics if it would:

Threshold 4.1.1: Have a substantial adverse effect on a scenic vista.

Threshold 4.1.2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Threshold 4.1.3: 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 experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.

Threshold 4.1.4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.6 Project Impacts

Threshold 4.1.1: Would the project have a substantial adverse effect on a scenic vista?

No Impact. The City of Laguna Woods is mostly urban and fully developed. Scenic vistas in the City include an undeveloped 10-acre parcel in the southwestern portion of the City and approximately 178 acres of open space along the City's western border.

The proposed Project would not, in and of itself, have a substantial adverse effect on a scenic vista, since it does not entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. If increased development intensities and maximum building heights are proposed as a part of the proposed Project, views of the designated scenic vistas would not be affected. The adoption of overlay zoning on the Potential Housing Sites would accommodate the construction of 1,196 housing units on the Potential Housing Sites. None of the Potential Housing Sites are adjacent to or near any of the designated scenic resources.

Two of the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are located adjacent to the two scenic vistas in the City, the SCE right-of-way and the undeveloped 10-acre parcel in the southwestern portion of the City. The land use designations on these two sites, which are currently owned and operated by the El Toro Water District, are proposed to be changed from Open Space to Community Facilities (Site 23) and Residential Community to Community Facilities (Site 25). The purpose of this redesignation is to correlate the existing use to the appropriate land use designations in the General Plan and Zoning Code. It is not anticipated that these changes would affect the existing land uses on those sites and therefore would not impact any existing aesthetic values.

Additionally, any future development projects that are implemented in accordance with the proposed zoning overlays and updated land use designations would be required to adhere to the City's General Plan, the City's Municipal Code, and all applicable development regulations pertaining to design, lighting, and height standards. All future development projects on the affected properties would be subject to the development review process to determine the effects on any scenic vistas in the City.

The proposed Project includes text changes in the Land Use Element. These text changes would not facilitate or entitle any physical development that would result in impacts to scenic vistas. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development that would result in impacts to scenic vistas. Therefore, the proposed Project would have no impact on scenic vistas, and no mitigation is required.

Threshold 4.1.2: 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. There are no eligible or officially designated State scenic highways in the City of Laguna Woods. As described above, the nearest eligible State scenic highways are a portion of SR-1 located approximately 5.5 miles southwest of the City, a portion of SR-74 located approximately 8.1 miles southeast of the City, and a portion of I-5 located approximately 8.1 miles southeast of the City. The nearest officially designated State scenic highway is a portion of SR-91 located approximately 17.9 miles northwest of the City (Caltrans 2018). The proposed Project would not, in and of itself, have a substantial adverse effect on scenic resources including trees, rock outcroppings, and historic buildings within a State scenic highway since it does not involve any properties near any scenic highways and does not entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. Future development projects that are implemented in accordance with the proposed zoning overlays and updated land use designations would be subject to future development review to evaluate any site-specific impacts on scenic resources.

The proposed Project includes text changes in the Land Use Element. These text changes would not facilitate or entitle any physical development that would result in impacts to scenic vistas. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Circulation Element and Noise Element would not facilitate or entitle any physical development that would result in impacts to State scenic highways. Further, because there are no eligible or officially designated State scenic highways in the City of Laguna Woods and the proposed Project does not propose the construction of new development, the proposed Project would not damage any scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway, and no mitigation would be required.

Threshold 4.1.3: 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. As stated in the existing environmental setting, according to the United States Census Bureau, Laguna Woods is located within the Mission Viejo—Lake Forest—San Clemente, CA Urbanized Area.¹ Therefore, Laguna Woods is considered an urbanized area.

Any future development that is allowed under the proposed zoning overlays or General Plan land use amendments would be subject to project-specific environmental evaluations to address any

¹ United States Census Bureau. 2010. Mission Viejo—Lake Forest—San Clemente, CA Urbanized Area No. 57709. Website: https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua57709_mission_viejo--lake_forest--san_clemente_ca/DC10UA57709_001.pdf (accessed August 2, 2021).

conflicts with applicable zoning and other regulations governing scenic quality, and would be subject to comply with applicable development regulations.

Additionally, text changes to the Noise Element, Circulation Element, and Land Use Element would not facilitate or entitle any physical development that would result in impacts to zoning and other regulations governing scenic quality. Thus, the proposed Project would not conflict with applicable zoning and other regulations governing scenic quality, and no mitigation measures would be required.

Threshold 4.1.4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. As described above, the proposed Project does not propose any direct changes to land use nor would it approve any specific development projects that would create any new sources of substantial light or glare which would adversely affect day or nighttime views in the area. With implementation of the proposed Project, overlay zones would be adopted on each of the Potential Housing Sites, which would allow for residential development to occur. New development would comply with the City's development standards, which require shielding for lighting to minimize light spillage unto adjacent properties.

Additionally, as a part of the proposed Project, the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses would undergo land use designation and zoning updates in order to reflect their current land uses. These sites would either be designated as open space or community facilities. Future development that is proposed for any of these sites would also be required to comply with the lighting standards set forth in City of Laguna Woods Municipal Code Section 13.12.040 (for those sites that would be designated as open space). All lighting that would be proposed as a part of potential development would be required to be located and designed such that direct light rays are confined to the premises.

Future development on the Potential Housing Sites and the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses would be subject to applicable development regulations as set forth in the City's Municipal Code that are intended to reduce light and glare impacts. For example, these regulations include requirements to install landscaping adjacent to drive aisles and parking areas to screen vehicle headlights on the Potential Housing Sites and install shielding on outdoor lighting fixtures to avoid light spillage on to neighboring properties so that direct light rays shall be confined to the building premises. Each development application received by the City would be reviewed for consistency with applicable Municipal Code regulations, which would ensure that light and glare impacts are reduced. Thus, the proposed Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and no mitigation would be required.

4.1.7 Level of Significance Prior to Mitigation

The proposed Project would not result in potentially significant impacts related to aesthetics, and mitigation measures are not required.

4.1.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are applicable to the proposed Project pertaining to aesthetics.

4.1.9 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area. The cumulative impact area used to assess potential cumulative aesthetics impacts is the City of Laguna Woods because the proposed Project could affect scenic vistas, visual resources, or the visual character within Laguna Woods. The City of Laguna Woods has not seen any new housing development since completion of the San Sebastian development project in 2008. The cumulative impacts associated with the proposed Project would only consider impacts from implementation of the proposed Project together with impacts from potential development that could occur on the Potential Housing Sites and the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, which would not contribute to any adverse aesthetics impacts in the vicinity of those sites.

Implementation of the proposed Project or any future development that is allowed under the proposed zoning overlays on the Potential Housing Sites or the zoning and land use amendments on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses would not result in a significant cumulative impact related to aesthetics. Future development on the Potential Housing Sites or the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses may be subject to project-specific environmental evaluations to address potential impacts related to aesthetics. In addition, all future development would be subject to City regulations designed to reduce and/or avoid impacts related to aesthetics. New residential development on any of the Potential Housing Sites would be subject to compliance with the lighting and open space regulations outlined in Section 13.08.030 of the Laguna Woods Municipal Code. Furthermore, the Potential Housing Sites are located in existing urban settings comprised of commercial and other non-residential land uses. The development of additional housing in an existing urban setting is not anticipated to introduce any new substantial source of light and glare based on requirements contained in the City's Municipal Code. Those Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses that would be designated as open space would be subject to compliance with the lighting regulations outlined in Section 13.12.040 of the Laguna Woods Municipal Code. Therefore, implementation of the proposed Project would not result in incremental effects on aesthetics that are cumulatively considerable.

4.1.10 Level of Significance After Mitigation

The proposed Project would not result in potentially significant impacts related to aesthetics, and mitigation measures are not required.

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4.2 AIR QUALITY

4.2.1 Introduction

This section has been prepared for the proposed Laguna Woods General Plan and Zoning Code Update (proposed Project) using methodologies and assumptions recommended in the air quality impact assessment guidelines of the South Coast Air Quality Management District (SCAQMD) in its *California Environmental Quality Act (CEQA) Air Quality Handbook*¹, and associated updates. In keeping with these guidelines, this section describes existing air quality and evaluates short-term impacts during construction, long-term emissions associated with operation, and how potential impacts correlate to human health. Air quality modeling data are included in Appendix B of this Program Environmental Impact Report (PEIR).

4.2.1.1 Scoping Process

The City of Laguna Woods (City) received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this PEIR. One letter included comments related to air quality.

Pursuant to Senate Bill (SB) 375, SCAG is the designated Regional Transportation Planning Agency under State law for the six-county Southern California region that includes Orange County and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS). SCAG's comments are intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) goals and align with RTP/SCS policies.

4.2.2 Methodology

Future development allowed on the Potential Housing Sites under the proposed Project would result in criteria pollutant emissions associated with construction and operational sources. Construction activities would generate emissions from off-road construction equipment, and on roadways as a result of construction-related truck hauling, vendor deliveries, and worker commuting. Operational activities would also generate emissions associated with miscellaneous on-site sources, such as natural gas combustion for cooking, heating, and landscaping equipment, and from operational-related traffic. This analysis utilized the California Emissions Estimator Model (CalEEMod) version 2020.4.0 to quantify the criteria pollutant emissions for both construction and operation of the proposed Project. The maximum daily emissions are calculated for the criteria pollutants. The CalEEMod output sheets are contained in Appendix B of this PEIR.

CalEEMod provides a platform to calculate both construction emissions and operational emissions from a project. It calculates both the daily maximum and annual average for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions. The model also provides default values for water and energy use. Specifically, the model performs the following calculations:

¹ South Coast Air Quality Management District (SCAQMD). 1993. *CEQA Air Quality Handbook*. Website: [http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)), (accessed November 2022).

- Short-term construction emissions associated with demolition, site preparation, grading, building, architectural coating (painting), and paving from off-road construction equipment; on-road mobile equipment associated with workers, vendors, delivery, and hauling; fugitive dust associated with grading, demolition, truck loading, and roads; and volatile emissions of volatile organic compounds (VOC) from architectural coating and paving.
- Operational emissions, such as on-road mobile vehicle traffic generated by the land uses, fugitive dust associated with roads, volatile emissions of reactive organic gases (ROGs) from architectural coatings, off-road emissions from landscaping equipment, volatile emissions of ROGs from consumer products and cleaning supplies, natural gas usage in the buildings, electricity usage in the buildings, water usage by the land uses, and solid waste disposal by the land uses.

In addition, CalEEMod contains default values and existing regulation methodologies to use in each specific local air quality district region. Appropriate statewide default values can be utilized if regional default values are not defined. This analysis utilized project-specific inputs and relevant model default factors for the Orange County (County) area, which is within the SCAQMD jurisdiction for the emissions inventory, consistent with SCAQMD requirements.

4.2.3 Existing Environmental Setting

The City is part of the South Coast Air Basin (Basin) and is under the jurisdiction of SCAQMD. Background information about air pollutants and health effects, climate, meteorological conditions, and regional air quality conditions in the Basin and local air quality conditions in the vicinity of the City is provided below.

4.2.3.1 Air Pollutants and Health Effects

Both State and federal governments have established health-based ambient air quality standards for six criteria air pollutants: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O₃ and NO₂, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO₂, and Pb are considered local pollutants that tend to accumulate in the air locally.

The primary pollutants of concern in the City are O₃, CO, and suspended particulate matter. Significance thresholds established by an air quality district are used to manage total regional and local emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual development projects that would contribute to regional and local emissions and could adversely affect or delay the air basin's projected attainment target goals for nonattainment criteria pollutants.

Because of the conservative nature of the significance thresholds, and the basin-wide context of individual development project emissions, there is no direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions

exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like nitrogen oxides (NO_x) and ROGs.

Further, by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to by itself result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, the air quality districts have considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise. These populations are referred to as sensitive receptors.

Air pollutants and their health effects, and other air pollution-related considerations are summarized in Table 4.2.A and are described in more detail below.

Ozone. Ozone (O₃) is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_x. The main sources of ROG and NO_x, often referred to as ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. Automobiles are typically the largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide. CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. CO transport is limited – it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of

Table 4.2.A: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O ₃)	<ul style="list-style-type: none"> ● Precursor sources:¹ motor vehicles, industrial emissions, and consumer products. 	<ul style="list-style-type: none"> ● Respiratory symptoms. ● Worsening of lung disease leading to premature death. ● Damage to lung tissue. ● Crop, forest, and ecosystem damage. ● Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals.
Particulate Matter Less than 2.5 Microns in Diameter (PM _{2.5})	<ul style="list-style-type: none"> ● Cars and trucks (especially diesels). ● Fireplaces, woodstoves. ● Windblown dust from roadways, agriculture, and construction. 	<ul style="list-style-type: none"> ● Premature death. ● Hospitalization for worsening of cardiovascular disease. ● Hospitalization for respiratory disease. ● Asthma-related emergency room visits. ● Increased symptoms, increased inhaler usage.
Particulate Matter Less than 10 Microns in Diameter (PM ₁₀)	<ul style="list-style-type: none"> ● Cars and trucks (especially diesels). ● Fireplaces, woodstoves. ● Windblown dust from roadways, agriculture, and construction. 	<ul style="list-style-type: none"> ● Premature death and hospitalization, primarily for worsening of respiratory disease. ● Reduced visibility and material soiling.
Nitrogen Oxides (NO _x)	<ul style="list-style-type: none"> ● Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves. 	<ul style="list-style-type: none"> ● Lung irritation. ● Enhanced allergic responses.
Carbon Monoxide (CO)	<ul style="list-style-type: none"> ● Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves. 	<ul style="list-style-type: none"> ● Chest pain in patients with heart disease. ● Headache. ● Light-headedness. ● Reduced mental alertness.
Sulfur Oxides (SO _x)	<ul style="list-style-type: none"> ● Combustion of sulfur-containing fossil fuels. ● Smelting of sulfur-bearing metal ores. ● Industrial processes. 	<ul style="list-style-type: none"> ● Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits.
Lead (Pb)	<ul style="list-style-type: none"> ● Contaminated soil. 	<ul style="list-style-type: none"> ● Impaired mental functioning in children. ● Learning disabilities in children. ● Brain and kidney damage.
Toxic Air Contaminants (TACs)	<ul style="list-style-type: none"> ● Cars and trucks (especially diesels). ● Industrial sources, such as chrome platers. ● Neighborhood businesses, such as dry cleaners and service stations. ● Building materials and products. 	<ul style="list-style-type: none"> ● Cancer. ● Reproductive and developmental effects. ● Neurological effects.

Source: California Air Resources Board (2018).

¹ Ozone is not generated directly by these sources. Rather, chemicals emitted by these precursor sources react with sunlight to form ozone in the atmosphere.

the blood and can cause headaches, nausea, dizziness, and fatigue, impair central nervous system function, and induce angina (chest pain) in persons with serious heart disease. Extremely high levels of CO, such as those generated when a vehicle is running in an unventilated garage, can be fatal.

Particulate Matter. Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from humanmade and natural sources. Particulate matter is categorized in two size ranges: PM₁₀, for particles less than 10 microns in diameter, and PM_{2.5}, for particles less than 2.5 microns in diameter. Motor vehicles are the primary generators of particulates, through tailpipe emissions as well as brake pad, tire wear, and entrained road dust. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of such fine particulates. These fine particulates are small enough to be inhaled into the deepest parts of the human lung and can cause adverse health effects. According to the California Air Resources Board (CARB), studies in the United States and elsewhere have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks, and studies of children's health in California have demonstrated that particle pollution may significantly reduce lung function growth in children.² Statewide attainment of particulate matter standards could reduce premature deaths, hospital admissions for cardiovascular and respiratory disease, asthma-related emergency room visits, and episodes of respiratory illness in California.

Nitrogen Dioxide. NO₂ is a reddish brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO₂. Aside from its contribution to ozone formation, NO₂ also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO₂ may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO₂ decreases lung function and may reduce resistance to infection.

Sulfur Dioxide. SO₂ is a colorless acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO₂ has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. SO₂ also reduces visibility and the level of sunlight at the ground surface.

Lead. Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery factories. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the United States Environmental Protection Agency (USEPA) established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA banned the use of leaded gasoline in highway vehicles in

² California Air Resources Board (CARB). 2020. *Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)*. Website: ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health (accessed November 2022).

December 1995. As a result of USEPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

Toxic Air Contaminants. In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

TACs do not have ambient air quality standards, but are regulated by the USEPA, CARB, and the SCAQMD. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. The CARB has completed a risk management process that identified potential cancer risks for a range of activities and land uses that are characterized by use of diesel-fueled engines.³ High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter is emitted from mobile sources—primarily “off-road” sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as trucks and buses traveling on freeways and local roadways.

The CARB Diesel Risk Reduction Plan is intended to substantially reduce diesel particulate matter emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel—a step already implemented—and cleaner-burning diesel engines.⁴ The technology for reducing diesel particulate matter emissions from heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions.

High Volume Roadways. Air pollutant exposures and their associated health burdens vary considerably within places in relation to sources of air pollution. Motor vehicle traffic is perhaps the most important source of intra-urban spatial variation in air pollution concentrations. Air quality research consistently demonstrates that pollutant levels are substantially higher near freeways and busy roadways, and human health studies have consistently demonstrated that children living within 100 to 200 meters (328 to 656 feet) of freeways or busy roadways have reduced lung function and higher rates of respiratory disease. At present, it is not possible to attribute the effects of roadway proximity on non-cancer health effects to one or more specific vehicle types or vehicle

³ CARB. 2000a. *Fact Sheet – California’s Plan to Reduce Diesel Particulate Matter Emissions*. October. Website: www.arb.ca.gov/diesel/factsheets/rrpfactsheet.pdf (accessed November 2022).

⁴ CARB. 2000b. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October. Prepared by the Stationary Source Division and Mobile Source Control Division. Website: www.arb.ca.gov/diesel/documents/rrpFinal.pdf (accessed November 2022).

pollutants. Engine exhaust, from diesel, gasoline, and other combustion engines, is a complex mixture of particles and gases, with collective and individual toxicological characteristics.

4.2.3.2 National and State Ambient Air Quality Standards

Both State and federal governments have established health-based ambient air quality standards for criteria air pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Both the USEPA and the CARB have established ambient air quality standards for the following common pollutants: CO, O₃, NO₂, SO₂, Pb, and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. These ambient air quality standards are levels of contaminants that avoid specific adverse health effects associated with each pollutant.

Federal standards include both primary and secondary standards. Primary standards establish limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, and buildings.⁵ State and federal standards for the criteria air pollutants are listed in Table 4.2.B.

4.2.3.3 Existing Climate and Air Quality

The following provides a discussion of the local and regional air quality and climate in the City of Laguna Woods.

Climate and Meteorology. Air quality in Laguna Woods is affected by various emission sources (e.g., mobile and industry) as well as atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States gives the South Coast Air Basin (Basin) some of the highest pollutant concentrations in the country.

The annual average temperature varies throughout the Basin, ranging from the low- to middle-60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas, including the City of Laguna Woods, show less variability in annual minimum and maximum temperatures than inland areas. January is typically the coldest month, and August and September are typically the warmest months in this area of the Basin.⁶

⁵ United States Environmental Protection Agency (USEPA). 2017. Criteria Air Pollutants. October. Website: www.epa.gov/criteria-air-pollutants (accessed November 2022).

⁶ Western Regional Climate Center. 2015. Website: <https://wrcc.dri.edu/summary/Climsmsca.html> (accessed June 2022).

Table 4.2.B: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		Federal Standards ²			
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷	
Ozone (O ₃) ⁸	1-Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry	
	8-Hour	0.07 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)			
Respirable Particulate Matter (PM ₁₀) ⁹	24-Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³		–			
Fine Particulate Matter (PM _{2.5}) ⁹	24-Hour	–	Gravimetric or Beta Attenuation	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³		12.0 µg/m ³			
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	–	Non-Dispersive Infrared Photometry (NDIR)	
	1-Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)			
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–			
Nitrogen Dioxide (NO ₂) ¹⁰	Annual Arithmetic Mean	0.03 ppm (57 µg/m ³)	Gas Phase Chemi- luminescence	53 ppb (100 µg/m ³)	Same as Primary Standard	Gas Phase Chemi- luminescence	
	1-Hour	0.18 ppm (339 µg/m ³)		100 ppb (188 µg/m ³)			
Lead (Pb) ^{12,13}	30-Day Average	1.5 µg/m ³	Atomic Absorption	–	Same as Primary Standard	High-Volume Sampler and Atomic Absorption	
	Calendar Quarter	–		1.5 µg/m ³ (for certain areas) ^l			
	Rolling 3- Month Average ⁱ	–		0.15 µg/m ³			
Sulfur Dioxide (SO ₂) ¹¹	24-Hour	0.04 ppm (105 µg/m ³)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectro- photometry (Pararosaniline Method)	
	3-Hour	–		–			0.5 ppm (1300 µg/m ³)
	1-Hour	0.25 ppm (655 µg/m ³)		75 ppb (196 µg/m ³) ¹¹			–
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹¹			–
Visibility- Reducing Particles ¹²	8-Hour	See footnote ¹⁴	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards			
Sulfates	24-Hour	25 µg/m ³	Ion Chromatography				
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence				
Vinyl Chloride ¹⁰	24-Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography				

Source: Ambient Air Quality Standards (California Air Resources Board 2016).

Table notes continued on the following page

- ¹ 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. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- ² National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.
- ³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- ⁴ Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
- ⁵ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- ⁶ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- ⁷ Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.
- ⁸ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- ⁹ On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- ¹⁰ To attain the 1-hour national standard, the three-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- ¹¹ On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the three-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- ¹² The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- ¹³ The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- ¹⁴ In 1989, the CARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius

µg/m³ = micrograms per cubic meter

CARB = California Air Resources Board

mg/m³ = milligrams per cubic meter

ppb = parts per billion

ppm = parts per million

USEPA = United States Environmental Protection Agency

The majority of annual rainfall in the Basin occurs between November and March. Summer rainfall is minimal and is generally limited to scattered thunderstorms in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The monthly average rainfall in Laguna Woods typically varies from 2.77 inches in February to 0.03 inch in July with an annual total of 12.52 inches.⁷ Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high, which is the semi-permanent high-pressure area of the north Pacific Ocean and is the dominating factor in California weather. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid-afternoon to late afternoon on hot summer days when the smog appears to clear up suddenly. Winter inversions frequently break by midmorning.

Winds in Laguna Woods blow predominantly from the west-northwest, with relatively low velocities.⁸ Wind speeds in Laguna Woods average between 4 miles per hour (mph) and 7 mph. Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north, or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months and disperse air contaminants. The Santa Ana conditions tend to last for several days at a time.⁹

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollution concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are CO and NO_x because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_x to form photochemical smog or ozone.

Attainment Status. CARB is required to designate areas of the State as attainment, nonattainment, or unclassified for all State standards. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An unclassified designation signifies that data do not support either an attainment or nonattainment

⁷ Western Regional Climate Center. 2015. Website: <https://wrcc.dri.edu/summary/Climsmsca.html> (accessed June 2022).

⁸ Iowa Environmental Mesonet. 2021. Windrows. Website: https://mesonet.agron.iastate.edu/sites/windrose.phtml?—network=CA_—ASOS&station=LGB. (accessed November 2022).

⁹ Ibid.

status. The California Clean Air Act (CCAA) divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The USEPA designates areas for O₃, CO, and NO₂ as one of the following: does not meet the primary standards, or cannot be classified, or better than national standards. For SO₂, areas are designated as: does not meet the primary standards, does not meet the secondary standards, cannot be classified, or better than national standards. Table 4.2.C provides a summary of the attainment status for the Basin with respect to both National and California Ambient Air Quality Standards (NAAQS and CAAQS, respectively).

Table 4.2.C: South Coast Air Basin Attainment Status

Pollutant	State	Federal
O ₃ 1 hour	Nonattainment	Extreme Nonattainment
O ₃ 8 hour	Nonattainment	Extreme Nonattainment
PM ₁₀	Nonattainment	Attainment/Maintenance
PM _{2.5}	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment/Maintenance
NO ₂	Attainment	Attainment/Maintenance
SO ₂	N/A	Attainment/Unclassified
Lead	Attainment	Partial Nonattainment ¹
All others	Attainment/Unclassified	Attainment/Unclassified

Source: South Coast Air Quality Management District (2016b).

¹ Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect redesignation to attainment based on current monitoring data.

CO = carbon monoxide
N/A = not applicable
NO₂ = nitrogen dioxide
O₃ = ozone

PM₁₀ = particulate matter less than 10 microns in size
PM_{2.5} = particulate matter less than 2.5 microns in size
SO₂ = sulfur dioxide

Air Quality Monitoring Results. Air quality monitoring stations are located throughout the nation and are maintained by the local air pollution control district and State air quality regulating agencies. The SCAQMD, together with CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring stations closest to the City are at 26081 Via Pera in Mission Viejo and 812 W. Vermont Street in Anaheim.

Pollutant monitoring results for years 2019 to 2021 at the Mission Viejo and Anaheim monitoring stations, shown in Table 4.2.D, indicate that air quality in the vicinity of the City has generally been good. As indicated in the monitoring results, the federal PM₁₀ standard was not exceeded during the three-year period. The State PM₁₀ standard was exceeded twice in the year 2020 only, with no exceedances in 2019 and 2021. Similarly, PM_{2.5} levels exceeded the federal standard twice in 2020 only, with no exceedances in 2019 and 2021. The State 1-hour ozone standards were exceeded 3 times in 2019, 20 times in 2020, and an unknown number of times in 2021. The State 8-hour ozone standards were exceeded 11 times in 2019, 34 times in 2020, and an unknown number of times in 2021. The federal 8-hour standards were exceeded 11 times in 2019, 32 times in 2020, and 8 times in 2021. The CO and NO₂ standards were not exceeded in this area during the 3-year period. SO₂ data were not available from 2019–2021 at air quality monitoring stations in Orange County.

Table 4.2.D: Ambient Air Quality in the Project Vicinity

Pollutant	Standard	2019	2020	2021
Carbon Monoxide (CO)¹				
Maximum 1-hour concentration (ppm)		1.0	1.7	1.0
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		0.8	0.8	0.8
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O₃)¹				
Maximum 1-hour concentration (ppm)		0.106	0.171	0.105
Number of days exceeded:	State: > 0.09 ppm	3	20	ND
Maximum 8-hour concentration (ppm)		0.088	0.123	0.081
Number of days exceeded:	State: > 0.07 ppm	11	34	ND
	Federal: > 0.07 ppm	11	32	8
Coarse Particulates (PM₁₀)¹				
Maximum 24-hour concentration (µg/m ³)		44.2	55.1	35
Number of days exceeded:	State: > 50 µg/m ³	0	2	0
	Federal: > 150 µg/m ³	0	0	0
Annual arithmetic average concentration (µg/m ³)		16.7	ND	ND
Exceeded for the year:	State: > 20 µg/m ³	No	ND	ND
	Federal: > 50 µg/m ³	No	ND	ND
Fine Particulates (PM_{2.5})¹				
Maximum 24-hour concentration (µg/m ³)		20.8	44.8	32.6
Number of days exceeded:	Federal: > 35 µg/m ³	0	2	0
Annual arithmetic average concentration (µg/m ³)		ND	9.3	9.7
Exceeded for the year:	State: > 12 µg/m ³	ND	No	No
	Federal: > 15 µg/m ³	ND	No	No
Nitrogen Dioxide (NO₂)²				
Maximum 1-hour concentration (ppm)		0.059	0.070	0.072
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.0192	0.0188	0.0189
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO₂)³				
Maximum 1-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	State: > 0.25 ppm	ND	ND	ND
Maximum 24-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	State: > 0.04 ppm	ND	ND	ND
	Federal: > 0.14 ppm	ND	ND	ND
Annual arithmetic average concentration (ppm)		ND	ND	ND
Exceeded for the year:	Federal: > 0.030 ppm	ND	ND	ND

Sources: CARB (2021) and USEPA (2021).

¹ Data taken from the Mission Viejo monitoring station at 26081 Via Pera.

² Data were taken from the Anaheim monitoring station at 812 W. Vermont Street.

³ SO₂ data are not available for Orange County.

CARB = California Air Resources Board

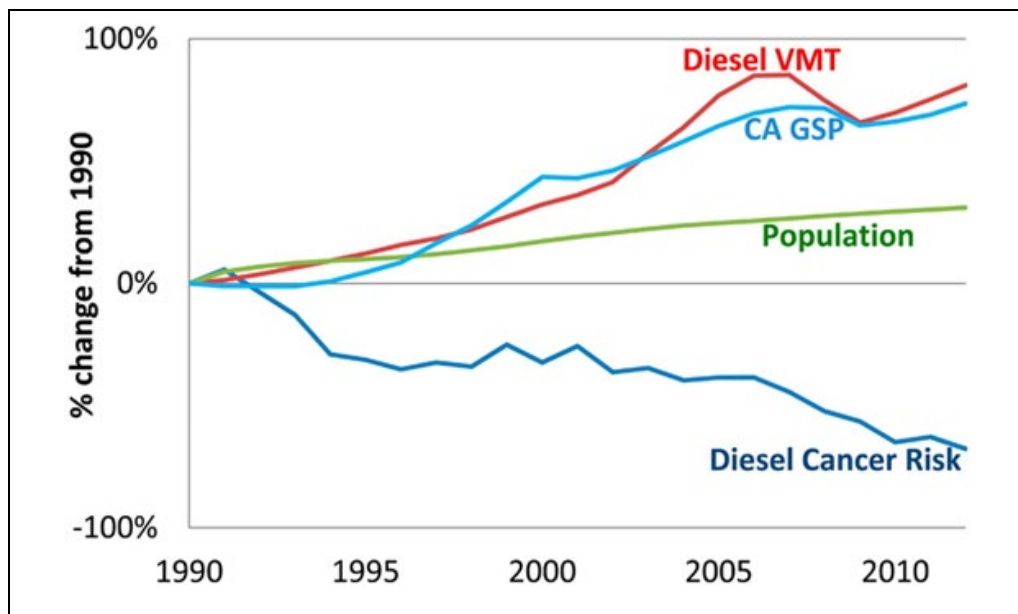
ND = No data. There were insufficient (or no) data to determine the value.

ppm = parts per million

USEPA = United States Environmental Protection Agency

Toxic Air Contaminant Trends. In 1984, the CARB adopted regulations to reduce TAC emissions from mobile and stationary sources, as well as consumer products. A CARB study showed that ambient concentrations and emissions of the seven TACs responsible for the most cancer risk from airborne exposure declined by 76 percent between 1990 and 2012.¹⁰ Concentrations of diesel particulate matter, a key TAC, declined by 68 percent between 1990 and 2012, despite a 31 percent increase in State population and an 81 percent increase in diesel vehicle miles traveled (VMT), as shown on Figure 4.2-1, below. The study also found that the significant reductions in cancer risk to California residents from the implementation of air toxics controls are likely to continue.

Figure 4.2-1: California Population, Gross State Product (GSP), Diesel Cancer Risk, and Diesel Vehicle Miles Traveled (VMT) Regulatory Context



Source: Ambient and Emission Trends of Toxic Air Contaminants in California (Propper, Ralph, et al. 2015).

The USEPA and the CARB regulate direct emissions from motor vehicles. The SCAQMD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

¹⁰ Propper, Ralph, Patrick Wong, Son Bui, Jeff Austin, William Vance, Álvaro Alvarado, Bart Croes, and Dongmin Luo. 2015. Ambient and Emission Trends of Toxic Air Contaminants in California. *American Chemical Society: Environmental Science & Technology*. Website: pubs.acs.org/doi/full/10.1021/acs.est.5b02766 (accessed November 2022).

4.2.4 Regulatory Setting

4.2.4.1 Federal Regulations

Federal Clean Air Act. At the federal level, the USEPA has been charged with implementing national air quality programs. The USEPA air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1963. The federal CAA was amended in 1970, 1977, and 1990.

The federal CAA required the USEPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The federal CAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The USEPA has responsibility to review all state SIPs to determine conformity with the mandates of the federal CAA and determine if implementation will achieve air quality goals. If the USEPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area, which imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated timeframe may result in sanctions on transportation funding and stationary air pollution sources in the air basin.

The USEPA is also required to develop National Emission Standards for Hazardous Air Pollutants, which are defined as those which may reasonably be anticipated to result in increased deaths or serious illness, and which are not already regulated. An independent science advisory board reviews the health and exposure analyses conducted by the USEPA on suspected hazardous pollutants prior to regulatory development.

4.2.4.2 State Regulations

California Clean Air Act. In 1988, the California Clean Air Act (CCAA) required that all air quality districts in the State endeavor to achieve and maintain CAAQS for carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), and nitrogen dioxide (NO₂) by the earliest practical date. The California Clean Air Act provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

California Air Resources Board. The CARB is the State's "clean air agency." The CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

Assembly Bill 2588 Air Toxics "Hot Spots" Information and Assessment Act. Under Assembly Bill (AB) 2588, stationary sources of air pollutants are required to report the types and quantities of certain substances that their facilities routinely released into the air. The goals of the Air Toxics "Hot

Spots” Act are to collect emission data, identify facilities having localized impacts, determine health risks, and notify nearby residents of significant risks.

The California Air Resources Board Handbook. CARB has developed an Air Quality and Land Use Handbook¹¹ (CARB Handbook) (2005), which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. According to the CARB Handbook, air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. The CARB Handbook recommends that county and city planning agencies strongly consider proximity to these sources when finding new locations for “sensitive” land uses such as homes, medical facilities, daycare centers, schools, and playgrounds.

Land use designations with air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses:

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

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

The recommendations are generalized and do not consider site-specific meteorology, freeway truck percentages, or other factors that influence risk for a particular project site. The purpose of this guidance is to further examine project sites for actual health risk associated with the location of new sensitive land uses.

4.2.4.3 Regional Regulations

South Coast Air Quality Management District. The SCAQMD has jurisdiction over most air quality matters in the South Coast Air Basin (Basin). This area includes all of Orange County, Los Angeles

¹¹ CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook). April.

County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. Los Angeles County is a subregion of the SCAQMD jurisdiction. The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin and is tasked with implementing certain programs and regulations required by the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). The SCAQMD prepares plans to attain CAAQS and NAAQS. SCAQMD is directly responsible for reducing emissions from stationary (area and point) sources. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

- **Regulation IV - Prohibitions:** This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air pollutant emissions, fuel contaminants, start-up/shutdown exemptions, and breakdown events.
 - **Rule 402 - Nuisance:** This rule restricts the discharge of any contaminant in quantities that cause or have a natural ability to cause injury, damage, nuisance, or annoyance to businesses, property, or the public. Future development projects that are implemented in accordance with the proposed zoning overlays and updated land use designations will be required to comply with Rule 402.
 - **Rule 403 - Fugitive Dust:** This rule requires the prevention, reduction, or mitigation fugitive dust emissions from a project site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter (µg/m³) and restricts the tracking out of bulk materials onto public roads. Additionally, Rule 403 requires an applicant to utilize one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities. Finally, Rule 403 requires that a contingency plan be prepared if so determined by the USEPA. In addition, SCAQMD Rule 403(e), Additional Requirements for Large Operations, includes requirements to provide Large Operation Notification Form 403 N, appropriate signage, additional dust control measures, and employment of a dust control supervisor that has successfully completed the Dust Control training class in the South Coast Air Basin. Future development projects that are implemented in accordance with the proposed zoning overlays and updated land use designations will be required to comply with Rule 403.
- **Regulation XI - Source Specific Standards:** Regulation XI sets emissions standards for different sources.
 - **Rule 1113 - Architectural Coatings:** This rule limits the amount of volatile organic compounds (VOCs) from architectural coatings and solvents, which lowers the emissions of odorous compounds. Future development projects that are implemented in accordance with the proposed zoning overlays and updated land use designations will be required to comply with Rule 1113.

The SCAQMD is responsible for demonstrating regional compliance with ambient air quality standards but has limited direct involvement in reducing emissions from fugitive, mobile, and natural sources. To that end, the SCAQMD works cooperatively with CARB, SCAG, county transportation commissions, local governments, and other federal and State government agencies. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs) to meet the CAAQS and NAAQS. SCAQMD and SCAG are responsible for formulating and implementing the AQMP for the South Coast Air Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. Every several years, SCAQMD prepares a new AQMP, updating the previous plan and the 20-year horizon.¹² The Final 2022 Air Quality Management Plan is the currently adopted AQMP. Key elements of the Final 2022 AQMP include the following:

- Calculating and taking credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Seeking new partnerships and significant funding for incentives to accelerate deployment of zero-emission and near-zero emission technologies
- Enhanced socioeconomic assessment, including an expanded environmental justice analysis
- Attainment of the 24-hour PM_{2.5} standard in 2019 with no additional measures
- Attainment of the annual PM_{2.5} standard by 2025 with implementation of a portion of the O₃ strategy
- Attainment of the 1-hour O₃ standard by 2022 with no reliance on “black box” future technology (federal Clean Air Act [CAA] Section 182(e)(5) measures)

The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NO_x technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard.

Southern California Association of Governments. SCAG is a council of governments for Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura Counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment. SCAG is the federally designated Metropolitan Planning

¹² South Coast Air Quality Management District (SCAQMD). 2016a. *Final 2016 Air Quality Management Plan*. March.

Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG prepares the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan (RCP) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RCP is a framework for decision-making for local governments, assisting them in meeting federal and State mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes. Policies within the RCP include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal) on September 3, 2020. Connect SoCal is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal is an important planning document for the region, allowing project sponsors to qualify for federal funding and takes into account operations and maintenance costs, to ensure reliability, longevity, and cost effectiveness.

Using growth forecasts and economic trends, the RTP provides a vision for transportation throughout the region for the next 20 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The SCS is a required element of the RTP, which integrates land use and transportation strategies to achieve CARB emissions reduction targets. The inclusion of the SCS is required by Senate Bill (SB) 375, which was enacted to reduce GHG emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The RTP/SCS would successfully achieve and exceed the GHG emission-reduction targets set by the CARB by achieving an 8 percent reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. This RTP/SCS also meets criteria pollutant emission budgets set by the USEPA.

4.2.4.4 Local Regulations

City of Laguna Woods General Plan. The City of Laguna Woods addresses air quality in the Conservation Element of the City's General Plan. The Conservation Element contains goals, policies, and implementing actions in relation to government organization roles and responsibilities, transportation, particulate and pollutant emissions, health and sensitive receptors, and land use.

The following goals, policies, and implementing actions related to air quality are presented in the Conservation Element¹³ and are applicable to the proposed Project:

GOAL CO-1. Improve Air Quality

- **Policy CO-1.1:** Adopt and enforce regulations promoting air resource goals.
 - Adopt, review, update, and enforce regulations including, but not limited to:
 - Regulations pertaining to the protection of sensitive receptors, fugitive dust control near sensitive receptors, and the location of new sensitive receptors away from primary pollutant emission sources.
 - Regulations pertaining to new and significant redevelopment project requirements for the accommodation and promotion of mobility alternatives to fossil fueled vehicles.
 - Regulations pertaining to mitigation of the urban heat island effect.
- **Policy CO-1.2:** Implement and support programs that reduce mobile source emissions.
 - Collaborate with the Orange County Transportation Authority and other demand-responsive mass transportation service providers to improve services and increase ridership.
 - Construct and maintain a multi-modal trail system that facilitates movement throughout the city by pedestrians, cyclists, golf carts, and zero low emission forms of transportation.
 - Synchronize traffic signals, both locally and regionally, to improve the flow of vehicular traffic.

4.2.5 Thresholds of Significance

The proposed Project may be deemed to have a significant impact with respect to air quality if it would:

Threshold 4.2.1: Conflict with or obstruct implementation of the applicable air quality plan.

Threshold 4.2.2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard.

Threshold 4.2.3: Expose sensitive receptors to substantial pollutant concentrations.

¹³ City of Laguna Woods. 2002. Laguna Woods General Plan, Conservation Element. October. Website: <https://www.cityoflagunawoods.org/wp-content/uploads/2015/07/2015-07-29-Adopted-CLW-Conservation-Element.pdf> (accessed November 2022).

Threshold 4.2.4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

4.2.5.1 Regional Emissions Thresholds

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the South Coast Air Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project’s contribution to health risks.

Table 4.2.E lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table 4.2.E: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Thresholds (lbs/day)					
	VOCs	NO _x	CO	PM ₁₀	PM _{2.5}	SO _x
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD. Air Quality Significance Thresholds. Website: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf> (accessed November 2022).

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM₁₀ = particulate matter less than 10 microns in size

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

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOCs = volatile organic compounds

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and that apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

4.2.5.2 Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project site are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the Basin, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 parts per million (ppm)
- California State 8-hour CO standard of 9 ppm

4.2.6 Project Impacts

Threshold 4.2.1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategies being based on projections from local General Plans.

Consistency with the 2022 AQMP would be achieved if the project is consistent with the goals, objectives, and assumptions in this plan to achieve the federal and State air quality standards. Per the SCAQMD's *CEQA Air Quality Handbook*, there are two main indicators of a project's consistency with the AQMP:

- **Indicator 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or emission reductions in the AQMP.
- **Indicator 2:** Whether the project would exceed the assumptions in the AQMP. The AQMP strategy is, in part, based on projections from local general plans.

Indicator 1: As demonstrated under Threshold 4.2.2 below, the proposed Project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by the SCAQMD. As such, the proposed Project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or emission reductions in the AQMP. Therefore, the proposed Project is considered consistent with Indicator 1.

Indicator 2: The *CEQA Air Quality Handbook* indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities. The proposed Project would not change the General Plan land use designations on any of the Potential Housing Sites. However, the proposed Project would establish Residential; High, Medium, Medium-Low and Low Density overlay zones on the Potential Housing Sites which could accommodate the development of up to 1,196 dwelling units. Additionally, the proposed Project would amend the zoning and land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. As such, this analysis evaluates whether the Project would exceed the 2022 AQMP's assumptions for 2040 or yearly increments based on the year of Project build out and phasing.

With respect to determining the proposed Project's consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's RTP/SCS regarding population, housing, and growth trends. According to SCAG's 2020–2045 RTP/SCS, the City's population, households, and employment are forecast to increase by approximately 200 residents, 100 households, and 1,400 jobs, respectively, between 2016 and 2045.¹⁴

The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. Of the Potential Housing Sites, 9 sites (Sites 1–8 and Site 15) would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per acre (du/ac). Five sites (Sites 9–12 and Site 17) would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites (Sites 13 and 16) would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and Site 14 would be within the Residential Medium Density Overlay, which would allow between 20–30 du/ac.

The proposed Project would also amend the zoning on 12 additional properties. The zoning districts on 10 properties (Site 18 and Sites 21–29) would be changed from Community Commercial, Open Space – Recreation, Open Space – Passive, and Residential Community to Community Facilities – Public/Institutional. The zoning districts on the other two properties would be changed from Residential Community to Open Space – Passive (Site 19) and from Residential Multifamily to Open Space – Recreation (Site 20). These minor administrative changes are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future.

As described further in Section 4.7, Population and Housing, the zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites. According to the 2017 American Housing Survey (AHS), the average household size in structures that have 50 or more housing units (the highest housing density type evaluated in the AHS) in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area (MSA) was 1.99 persons. Because most of the proposed zoning overlays would allow for higher density housing, 1.99 persons per household was deemed appropriate for use in the analysis contained in this PEIR. Therefore, the additional 1,196 housing units that would potentially be built in the City would result in an increase in 2,382 residents. The Regional Housing Needs Assessment (RHNA) for the City of Laguna Woods accounts for 997 additional housing units, which would provide housing for approximately 1,984 additional residents.

Future development allowed under the rezoning program would accommodate planned regional housing growth included in the SCAG RHNA. Any future projects implemented in accordance with the proposed zoning overlays and updated land use designations would be required to adhere to the General Plan. Therefore, since the purpose of the proposed Project is to accommodate planned regional housing growth included in the SCAG RHNA, the proposed Project would not exceed the

¹⁴ Southern California Association of Governments (SCAG). 2020. *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*. Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176 (accessed November 2022).

growth assumptions in the SCAG's RTP/SCS or the AQMP. As such, the proposed Project would result in a less than significant impact related to a conflict or obstruction of implementation of applicable air quality plans. No mitigation is required.

The proposed Project also includes text changes in the Land Use Element. These text changes provide internal consistency between General Plan Elements and would not facilitate or entitle any physical development that would result in air quality impacts. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan update. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development that would result in impacts to air quality. The Project also includes text changes to the existing General Plan Circulation Element, and renaming it to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. "Mobility" is purposefully used in this element's title to emphasize the City's commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines "users of streets, roads, and highways" as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on public services and utilities. As discussed in Chapter 3.0, Project Description, the City is substantially built out, and the Mobility Element focuses on maintaining and coordinating the City's balanced multi-modal transportation network. Thus, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in impacts to air quality. Therefore, the proposed Project would not conflict or obstruct implementation of applicable air quality plans. Impacts would be less than significant, and no mitigation is required.

Threshold 4.2.2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard?

Less Than Significant Impact. The Basin is currently designated as nonattainment for the federal and State standards for O₃ and PM_{2.5}. In addition, the Basin is in nonattainment for the PM₁₀ standard. The Basin's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SCAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable,

resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed Project.

Construction. It is important to note that the proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. The proposed zoning overlays would accommodate the construction of 1,196 housing units on the Potential Housing Sites.

Construction activities associated with the construction of additional housing units that could occur during implementation of the Project would occur through the horizon year 2045, which would cause short-term emissions of criteria air pollutants. The primary source of emissions is the operation of construction equipment. Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Construction activities would include demolition, grading, site preparation, building construction, architectural coating, and paving activities. Construction-related effects on air quality are typically greatest during the grading phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at construction sites. Unless properly controlled, vehicles leaving construction sites would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SCAQMD has established Rule 403 (Fugitive Dust), which would require the contractor to implement measures that would reduce the amount of particulate matter generated during the construction period.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, VOCs and some soot particulate (PM_{2.5} and PM₁₀) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Information regarding specific development projects is not yet known; however, due to the scale of development activity associated with the proposed Project, this analysis assumes that 1,196 housing units would be constructed over the approximately 22-year planning period. Construction emissions were estimated for the Project using CalEEMod. This analysis assumes that construction of the

proposed Project would begin in 2023 and end in 2045, which was included in CalEEMod. In addition, this analysis conservatively assumes demolition of the existing structures on the Potential Housing Sites, which would total approximately 485,195 square feet, which was also included in CalEEMod. Demolition, grading, and building activities would involve the use of standard earthmoving equipment such as large excavators, cranes, and other related equipment.

As specified in Regulatory Compliance Measure (RCM) AQ-1 through RCM AQ-4, detailed below, construction of the proposed Project would comply with SCAQMD standard conditions, including Rule 403 (Fugitive Dust) to control fugitive dust and Rule 1113 (Architectural Coatings) to control VOC emissions from paint. Compliance with SCAQMD standard conditions is a regulatory requirement and was considered in the analysis of construction emissions.

The maximum daily emissions of VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5} that would result from construction of the proposed Project are summarized in Table 4.2.F and compared to the SCAQMD regional significance thresholds. As shown in Table 4.2.F, construction emissions associated with the proposed Project would not exceed the significance thresholds established by the SCAQMD for any of the criteria pollutants.

Table 4.2.F: Project Construction Emissions (in Pounds Per Day)

Project Construction	Maximum Pollutant Emissions (lbs/day)					
	VOCs	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Demolition	1.3	33.1	25.3	<0.1	1.5	1.0
Site Preparation	1.3	33.8	23.4	<0.1	10.0	5.5
Grading	1.9	51.3	37.2	0.1	5.7	3.0
Building Construction	2.2	28.7	29.7	0.1	6.6	2.5
Paving	1.0	20.1	17.6	<0.1	0.8	0.7
Architectural Coating	6.3	2.4	3.5	<0.1	1.1	0.4
Peak Daily Emissions	8.5	51.3	37.2	0.1	10.0	5.5
SCAQMD Thresholds	75.0	100.0	550.0	150	150.0	55.0
Exceeds?	No	No	No	No	No	No

Source: Compiled by LSA (November 2022).

¹ Peak daily emissions of VOCs occur during overlap of the Building Construction and Architectural Coating phases.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

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

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOCs = volatile organic compounds

As shown in Table 4.2.F, construction emissions associated with the Project would not exceed the SCAQMD thresholds for VOCs, NO_x, CO, SO_x, PM_{2.5}, or PM₁₀ emissions. As discussed above, according to SCAQMD guidance, projects that exceed the significance thresholds are considered by SCAQMD to result in cumulatively considerable air quality impacts. Conversely, projects that do not exceed the significance thresholds are generally not considered to result in cumulatively considerable air quality impacts. Therefore, based on the fact that emissions during construction of the proposed Project would not exceed any of the air quality significance thresholds for any criteria pollutants, the proposed Project would not have a cumulatively considerable air quality impact. In addition, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in construction-related impacts.

Therefore, with compliance with regulatory requirements (as specified in RCM AQ-1 through RCM AQ-4), construction impacts related to the cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment under applicable NAAQS or CAAQS would be less than significant, and no mitigation is required.

Operation. As previously stated, the proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. The proposed zoning overlays would accommodate the construction of 1,196 housing units on the Potential Housing Sites.

Operational activities associated with the additional housing units would result in long-term air pollutant emissions associated with mobile sources (e.g., vehicle trips), energy sources (e.g., natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment). Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

PM₁₀ emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM₁₀ occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other particulate matter emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles. As discussed above, the proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. As such, the proposed Project would generate 746 net new average daily trips.

Energy source emissions result from activities in buildings for which natural gas is used. The quantity of emissions is the product of usage intensity (i.e., the amount of natural gas) and the emission factor of the fuel source.

Typically, area source emissions consist of emissions from the use of architectural coatings, consumer products, and landscaping equipment.

Long-term operation emissions associated with build out of the 1,196 housing units was calculated using CalEEMod. Model results are shown in Table 4.2.G below. CalEEMod output sheets are included in Appendix B of this PEIR.

As shown in Table 4.2.G, Project emissions would not exceed the significance criteria for VOCs, NO_x, CO, SO_x, PM₁₀, or PM_{2.5} emissions; therefore, the proposed Project would not have a significant effect on regional air quality. In addition, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in operational air quality impacts. Therefore, operational impacts related to the cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment under applicable NAAQS or CAAQS would be less than significant, and no mitigation is required.

Table 4.2.G: Project Operational Emissions (in Pounds Per Day)

Source	Pollutant Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Project Area Sources	51.4	19.0	105.9	0.1	2.0	2.0
Project Energy Sources	0.8	7.2	3.1	<0.1	0.6	0.6
Project Mobile Sources	1.6	1.5	15.9	<0.1	5.4	1.4
Total Project Emissions	53.8	27.7	124.9	0.1	8.0	4.0
SCAQMD Thresholds	55.0	55.0	550.0	150.0	150.0	55.0
Exceeds?	No	No	No	No	No	No

Source: Compiled by LSA (November 2022).

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

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

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOCs = volatile organic compounds

Long-Term Microscale (CO Hot Spot) Analysis. Vehicular trips associated with the proposed Project would contribute to congestion at intersections and along roadway segments in the City. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed Project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project’s effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Ambient CO levels monitored at the Mission Viejo monitoring station, the closest station to the City, showed a highest recorded 1-hour concentration of 1.7 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 0.8 ppm (the State standard is 9 ppm) during the past 3 years (Table 4.2.D). The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. The proposed Project would generate 746 net new average daily trips in the immediate vicinity of the Potential Housing Sites and would result in a net decrease in 9 AM peak hour trips and a decrease in 187 PM peak hour trips when compared to the existing uses. As the proposed Project would result in a decrease in AM and PM peak hour trips, the proposed Project did not meet the criteria for an evaluation of study area intersection or roadway segment LOS. Therefore, it is assumed that Project traffic would not create any significant adverse impacts to nearby intersections.

Therefore, given the extremely low level of CO concentrations in the City, and lack of traffic impacts at any intersections, project-related vehicles are not expected to contribute significantly or result in the CO concentrations exceeding the State or federal CO standards. In addition, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in CO hot spots. Impacts related to CO hot spots would be less than significant, and no mitigation is required.

Threshold 4.2.3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. As discussed previously, the proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. The proposed Project includes the adoption of zoning overlays that would accommodate the construction of 1,196 housing units on the Potential Housing Sites.

The SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors such as residential land uses in the immediate vicinity of the Project site as a result of construction and operational activities. The thresholds are based on standards established by the SCAQMD in its Localized Significance Thresholds (LST) Methodology¹⁵ and are measured against construction and operational emissions that occur on a specific project site. These emissions are primarily generated from heavy-duty construction equipment and demolition, grading, and trenching activities. However, the LSTs are applicable to projects at the project-specific level and are not applicable to programmatic documents, such as the proposed Project. Construction and operational emissions associated with future individual projects developed under the proposed Project, would however, have the potential to cause or contribute to significant localized air quality impacts to nearby residential land uses within the planning area. Localized construction impacts of future residential development could potentially exceed the LSTs, particularly for construction of areas larger than 5 acres or areas with more intense construction activities. To address this, regulatory measures (e.g., SCAQMD Rule 201 for a permit to operate, Rule 403 for fugitive dust control, Rule 1113 for architectural coatings, Rule 1403 for new source review, and CARB's Airborne Toxic Control Measures) are currently in place, and mitigation would be imposed at the project level, which may include use of special equipment.

It should be noted that the amount of emissions from a project does not necessarily correspond to the concentrations of air pollutants. A dispersion modeling analysis would be necessary to calculate health risk from project implementation. However, since it is not possible to translate the amount of an unknown future specific project's emissions to a particular concentration, it is not possible to calculate the risk factor for a particular health effect at the time of this analysis.

Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Particulate matter can also lead to a variety of health effects in people. These include premature death of people with heart or lung disease, heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Regional emissions of

¹⁵ SCAQMD. 2021. Localized Significance Thresholds. Website: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds> (accessed November 2022).

criteria pollutants contribute to these known health effects. The SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals and that they are not exposed to elevated concentrations of criteria pollutants in the Basin. To achieve the health-based standards established by the USEPA, the SCAQMD prepares an AQMP that details regional programs to attain the ambient air quality standards.

Although the analysis for the proposed Project identifies that construction emissions associated with the Project would not exceed the SCAQMD's thresholds for VOCs, NO_x, CO, SO_x, PM_{2.5}, or PM₁₀ emissions, it should be noted that not exceeding the SCAQMD's numeric regional mass daily thresholds does not necessarily correspond to less than significant health risk impacts to sensitive receptors. This is because the mass daily thresholds are in pounds per day emitted into the air, whereas health effects are determined based on the concentration of emissions in the air at a particular receptor (e.g., parts per million [ppm] by volume of air, or micrograms per cubic meter [$\mu\text{g}/\text{m}^3$] of air). State and federal ambient air quality standards were developed to protect the most susceptible population groups from adverse health effects and were established in terms of parts per million or micrograms per cubic meter for the applicable emissions.

For this reason, the SCAQMD developed the LST Methodology. The LST methodology is based on the amount of emissions that could be generated from a project in order for a project to not cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are based on the ambient concentrations of the pollutant and the relative distance to the nearest sensitive receptor. However, as noted above, the LSTs are applicable to projects at the project-specific level and are not applicable to this programmatic planning level document. Localized construction impacts of future residential development projects could potentially exceed the LSTs, particularly for construction of areas larger than 5 acres or areas with more intense construction activities. Therefore, without mitigation, exceedances of the LSTs could have the potential to cause or exacerbate an exceedance of the CAAQS or NAAQS. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (children and the elderly) are protected. Therefore, the ambient air quality standards are purposefully set low to protect children, the elderly, and those with existing respiratory problems.

However, the SCAQMD acknowledges that they have only been able to correlate potential health outcomes for very large emissions sources; specifically, 6,620 pounds per day (lbs/day) of NO_x, and 89,180 lbs/day of VOCs were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to ozone.¹⁶ It is not expected that any future residential development associated with the proposed Project would generate 6,620 lbs/day of NO_x or 89,180 lbs/day of VOC emissions. As identified in Table 4.2.F above, based on the scale of development associated with the anticipated build out, construction projects would generate a maximum of 51.3 lbs/day of NO_x and 8.5 lbs/day of VOCs.

Therefore, emissions associated with future projects are not sufficiently high enough to use a regional modeling program to correlate health effects on a Basin-wide level.

¹⁶ Supreme Court of California. 2015. *Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno, Plaintiffs and Appellants, v. County of Fresno, Defendant and Despondent, and Friant Ranch, L.P., Real Part in Interest and Despondent*. April.

Current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences. For this reason, this discussion explains why it is not feasible to provide such an analysis. However, individual projects would still be required to conduct a site-specific localized impact analysis that evaluates potential project health impacts at a project level to immediately adjacent land uses.

Additionally, refer to the analysis provided under Threshold 4.2.2 for a discussion of potential construction and operational impacts relating to criteria air pollutants. With implementation of RCM AQ-1 through RCM AQ-4, the potential health impacts associated with the construction of the proposed Project would be less than significant.

The proposed Project includes the adoption of zoning overlays that would accommodate the construction of 1,197 housing units on the Potential Housing Sites. Localized construction and operational impacts associated future housing development could potentially exceed the LSTs. However, as discussed above, all future discretionary projects would be reviewed in accordance with CEQA and would require further evaluation at the project level to demonstrate whether emissions would exceed SCAQMD's LSTs and require project-specific mitigation. In addition, RCM AQ-1 through RCM AQ-4 would be required for construction of future projects to ensure compliance with SCAQMD standard conditions, including Rule 403 (Fugitive Dust) to control fugitive dust and Rule 1113 (Architectural Coatings) to control VOC emissions from paint. Furthermore, any necessary mitigation would be imposed at the project level once such future projects are proposed. In addition, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in impacts to sensitive receptors. Therefore, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant. No mitigation is required.

Threshold 4.2.4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. Growth within the City could generate new sources of odors and place sensitive receptors near existing sources of odors. Nuisance odors from land uses in the Basin are regulated under SCAQMD Rule 402, Nuisance, which states:

A person 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. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Examples of odor-generating projects are wastewater treatment plants, compost facilities, landfills, solid-waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and

food manufacturing facilities. The adoption of the zoning overlays would accommodate the construction of 1,197 housing units on the Potential Housing Sites; therefore, the proposed Project would not include land uses that would be expected to generate odors.

Residential land uses could result in generation of odors such as exhaust from landscaping equipment. However, unlike the odor-generating land uses identified above, these are not considered potential generators of odor that could affect a substantial number of people. Therefore, impacts from potential odors generated from future housing development associated with the proposed Project are considered less than significant.

During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment and unlikely to affect a substantial number of people. In addition, by the time such emissions reached any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials. Therefore, impacts associated with construction-generated odors are considered to be less than significant. In addition, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in odor impacts. Therefore, impacts associated with other emissions (such as those leading to odors) adversely affecting a substantial number of people would be less than significant. No mitigation is required.

4.2.7 Level of Significance Prior to Mitigation

The proposed Project would result in less than significant impacts. However, the following compliance measures are existing SCAQMD regulations that are applicable to the proposed Project and are considered in the analysis of potential impacts related to air quality. These requirements are considered to be mandatory compliance measures; therefore, they are not mitigation measures.

4.2.8 Regulatory Compliance Measures and Mitigation Measures

RCM AQ-1 During clearing, grading, earth moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventative measures by using the following procedures, in compliance with South Coast Air Quality Management District (SCAQMD) Rule 403 during construction. The applicable Rule 403 measures are as follows:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).

- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Pave construction access roads at least 100 feet (30 meters) onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

RCM AQ-2 All trucks that are to haul excavated or graded material shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.

RCM AQ-3 Prior to approval of future project plans and specifications for public projects undertaken by the City of Laguna Woods, the City shall confirm that the construction bid packages specify:

- Contractors shall use high-volume low-pressure paint applicators with a minimum transfer efficiency of at least 50 percent;
- Coatings and solvents that will be utilized have a volatile organic compound content lower than required under SCAQMD Rule 1113; and
- To the extent feasible, construction/building materials shall be composed of pre-painted materials.

RCM AQ-4 Future projects shall comply with SCAQMD Rule 402. Rule 402 prohibits the discharge of air contaminants or other material from any type of operations, which can cause nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort or repose of any such persons, or the public.

4.2.9 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for air quality. The cumulative impact area for air quality related to the proposed Project is the South Coast Air Basin.

Air pollution is inherently a cumulative type of impact measured across an air basin. The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. The proposed Project would also amend the land use designations and zoning districts on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. This action is being proposed to ensure that the land use designations and zoning reflect the existing uses on those parcels and would not result in cumulative impacts. Any future projects implemented in accordance with the proposed zoning overlays and

updated land use designations would be required to adhere to the General Plan and comply with applicable development regulations. In addition, the discussion under Threshold 4.2.2, above, includes an analysis of build out allowed under the proposed Project and its contribution to cumulative air impacts. To summarize the conclusion with respect to that analysis, the incremental effect of projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively considerable. The proposed Project's construction- and operation-related regional daily emissions are less than the SCAQMD significance thresholds for all criteria pollutants. In addition, adherence to SCAQMD rules and regulations would substantially reduce potential impacts associated with South Coast Air Basin-wide air pollutant emissions. Therefore, the proposed Project would not have a cumulatively considerable increase in emissions, and the proposed Project's cumulative air quality impacts would be less than significant. No mitigation is required.

4.2.10 Level of Significance After Mitigation

No mitigation is required. The proposed Project would not result in potentially significant impacts related to air quality.

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4.3 ENERGY

4.3.1 Introduction

This section has been prepared for the proposed Laguna Woods General Plan and Zoning Code Update (proposed Project) and discusses energy use resulting from implementation of the proposed Project. This section also evaluates whether the proposed Project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency.

4.3.1.1 Scoping Process

The City of Laguna Woods (City) received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). No comment letters were related to energy.

4.3.2 Methodology

The energy use analysis in this section is based on information from the California Emissions Estimator Model (CalEEMod) version 2020.4.0 modeling results in Appendix B of this PEIR. Operational fuel consumption (diesel fuel and gasoline) from vehicle trips was estimated for the horizon year (2045) of the proposed Project based on trip estimates from the CalEEMod model and fuel efficiencies from the California Air Resources Board's (CARB) EMISSION FACTOR MODEL (EMFAC2021) model. Estimates of fuel consumption (diesel fuel and gasoline) from construction trucks and construction worker vehicles were based on trip estimates from CalEEMod and fuel efficiencies from the CARB EMFAC2021 model.

The analysis focuses on the four sources of energy that are relevant to the proposed Project: electricity, natural gas, the equipment fuel necessary for Project construction, and vehicle fuel necessary for Project operations. For the purposes of this analysis, the amount of electricity, natural gas, construction fuel, and fuel use from operations are quantified and compared to that consumed in Orange County. The electricity/natural gas use of the proposed Project is analyzed as a whole on an annual basis.

4.3.3 Existing Environmental Setting

4.3.3.1 Electricity

Electricity is a human-made resource. The production of electricity requires the consumption or conversion of energy resources (including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources) into energy. Electricity is used for a variety of purposes (e.g., lighting, heating, cooling, and refrigeration, and for operating appliances, computers, electronics, machinery, and public transportation systems).¹

According to the most recent data available, in 2021, California's electricity was generated primarily by natural gas (37.9 percent), renewable sources (33.6 percent), large hydroelectric

¹ United States Energy Information Administration (EIA). 2020b. Electricity Explained. Website: <https://www.eia.gov/energyexplained/electricity/> (accessed November 2022).

(9.2 percent), nuclear (9.3 percent), coal (3.0 percent), and other unspecified sources. Total electric generation in California in 2020 was 272,576 gigawatt-hours (GWh), down 2 percent from the 2019 total generation of 277,704 GWh.²

The Project site is within the service territory of Southern California Edison (SCE). SCE provides electricity to more than 15 million people in a 50,000-square-mile (sq mi) area of Central, Coastal, and Southern California.³ According to the California Energy Commission (CEC), total electricity consumption in the SCE service area in 2020 was 83,532.6 GWh (32,475 GWh for the residential sector and 51,057 GWh for the non-residential sector). Total electricity consumption in Orange County in 2020 was 19,733 GWh (7,765 GWh for the residential sector).⁴

4.3.3.2 Natural Gas

Natural gas is a non-renewable fossil fuel. Fossil fuels are formed when layers of decomposing plant and animal matter are exposed to intense heat and pressure under the surface of the Earth over millions of years. Natural gas is a combustible mixture of hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas is found in naturally occurring reservoirs in deep underground rock formations. Natural gas is used for a variety of uses (e.g., heating buildings, generating electricity, and powering appliances such as stoves, washing machines and dryers, gas fireplaces, and gas grills).⁵

Natural gas consumed in California is used for electricity generation (45 percent), residential uses (21 percent), industrial uses (25 percent), and commercial uses (9 percent). California continues to depend on out-of-state imports for nearly 90 percent of its natural gas supply.⁶

The Southern California Gas Company (SoCalGas) is the natural gas service provider for the Project site. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000 sq mi service area throughout Central and Southern California, from Visalia to the Mexican border.⁷ According to the CEC, total natural gas consumption in the SoCalGas service area in 2020 was 5,231 million therms (2,426 million therms for the residential sector). Total natural gas consumption in Orange County in 2020 was 595 million therms (387 million therms for the residential sector).

² California Energy Commission (CEC). 2022c. *2020 Total System Electric Generation*. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation> (accessed November 2022).

³ Southern California Edison (SCE). 2020. About Us. Website: <https://www.sce.com/about-us/who-we-are> (accessed November 2022).

⁴ CEC. 2020a. Electricity Consumption by County and Entity. Website: <http://www.ecdms.energy.ca.gov/elecbycounty.aspx> and <http://www.ecdms.energy.ca.gov/elecbyutil.aspx> (accessed November 2020).

⁵ EIA. 2020c. Natural Gas Explained- Use of Natural Gas. Website: https://www.eia.gov/energyexplained/index.php?page=natural_gas_use (accessed November 2022).

⁶ CEC. 2020b. Supply and Demand of Natural Gas in California. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california> (accessed November 2022).

⁷ Southern California Gas Company (SoCalGas). 2020. About SoCalGas. Website: <https://www3.socalgas.com/about-us/company-profile> (accessed November 2022).

4.3.3.3 Petroleum/Transportation Energy

Petroleum is also a non-renewable fossil fuel. Petroleum is a thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the earth's surface. Petroleum is primarily recovered by oil drilling. It is refined into a large number of consumer products, primarily fuel oil, gasoline, and diesel.

The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.9 mpg in 2020.⁸ Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. The Act, which originally mandated a national fuel economy standard of 35 mpg by year 2020⁹, applies to cars and light trucks of Model Years 2011 through 2020. In March 2020, the United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) finalized the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, further detailed below.

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. According to the most recent data available, total gasoline consumption in California was 289,918 thousand barrels or 1,464.7 trillion British Thermal Units (BTU) in 2020.¹⁰ Of the total gasoline consumption, 273,289 thousand barrels or 1,380.7 trillion BTU were consumed for transportation.¹¹ Based on fuel consumption obtained from CARB's California Emissions Factor Model, Version 2021 (EMFAC2021), approximately 1.2 billion gallons of gasoline and 154.1 million gallons of diesel were estimated to be consumed from vehicle trips in Orange County in 2022.

4.3.4 Regulatory Setting

4.3.4.1 Federal Regulations

Energy Policy Act of 2005. The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

⁸ U.S. Department of Transportation (USDOT). "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Website: <https://www.bts.dot.gov/bts/bts/content/average-fuel-efficiency-us-light-duty-vehicles> (accessed November 2022).

⁹ U.S. Department of Energy. 2007. "Energy Independence & Security Act of 2007." Website: <https://www.afdc.energy.gov/laws/eisa> (accessed November 2022).

¹⁰ A British Thermal Unit is defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

¹¹ United States EIA. 2020a. California State Profile and Energy Estimates. Table F3: Motor gasoline consumption, price, and expenditure estimates, 2018. Website: eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA (accessed November 2022).

Safer Affordable Fuel-Efficient Vehicles Rule. On March 21, 2020, the USEPA and NHTSA finalized the SAFE Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). The SAFE Vehicles Rule amends certain existing Corporate Average Fuel Economy (CAFE) and tailpipe CO₂ emissions standards for passenger cars and light trucks and establishes new standards, all covering model years 2021 through 2026. More specifically, the NHTSA set new CAFE standards for model years 2022 through 2026 and amended its 2021 model year CAFE standards, and the USEPA amended its CO₂ emissions standards for model years 2021 and later.

4.3.4.2 State Regulations

Assembly Bill 1575, Warren-Alquist Act. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575 (also known as the Warren-Alquist Act), which created the CEC. The statutory mission of the CEC is to forecast future energy needs; license power plants of 50 megawatts (MW) or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code (PRC) Section 21100(b)(3) and *State CEQA Guidelines* Section 15126.4 to require EIRs to include, where relevant, mitigation measures proposed to minimize the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the *State CEQA Guidelines*. Appendix F assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the *State CEQA Guidelines* also states that the goal of conserving energy implies the wise and efficient use of energy and the means of achieving this goal, including (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.

Senate Bill 1389, Energy: Planning and Forecasting. In 2002, the State Legislature passed Senate Bill (SB) 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles (ZEVs) and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

In compliance with the requirements of SB 1389, the CEC adopts an Integrated Energy Policy Report every 2 years and an update every other year. The most recently adopted report includes the *2021 Integrated Energy Policy Report*¹² and the *2022 Integrated Energy Policy Report Update*.¹³ The *Integrated Energy Policy Report* covers a broad range of topics, including decarbonizing buildings,

¹² CEC. 2022a. *2021 Integrated Energy Policy Report*. California Energy Commission. Docket Number: 21-IEPR-01.

¹³ CEC. 2022b. *2022 Integrated Energy Policy Report Update*. California Energy Commission. Docket Number: 22-IEPR-01.

integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast. The *Integrated Energy Policy Report* provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs.

Renewable Portfolio Standards. SB 1078 established the California Renewable Portfolio Standards program in 2002. SB 1078 initially required that 20 percent of electricity retail sales be served by renewable resources by 2017; however, this standard has become more stringent over time. In 2006, SB 107 accelerated the standard by requiring that the 20 percent mandate be met by 2010. In April 2011, SB 2 required that 33 percent of electricity retail sales be served by renewable resources by 2020. In 2015, SB 350 established tiered increases to the Renewable Portfolio Standards of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In 2018, SB 100 increased the requirement to 60 percent by 2030 and required that all State's electricity to come from carbon-free resources by 2045. SB 100 took effect on January 1, 2019.¹⁴

Title 24, California Building Code. Energy consumption by new buildings in California is regulated by the Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR), known as the California Building Code (CBC). The CEC first adopted the Building Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. The CBC is updated every 3 years, and the current 2022 CBC went into effect on January 1, 2023. The efficiency standards apply to both new construction and rehabilitation of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in CCR Title 24.

California Green Building Standards Code (CALGreen Code). In 2010, the California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards, referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code took effect on January 1, 2011. The CALGreen Code is updated on a regular basis, with the most recent update consisting of the 2022 CALGreen Code standards that became effective January 1, 2023. The CALGreen Code established mandatory measures for residential and non-residential building construction and encouraged sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce greenhouse gas (GHG) emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and non-residential buildings subject to the standard.

¹⁴ California Public Utilities Commission (CPUC). 2020. Renewables Portfolio Standard (RPS) Program. Website: <https://www.cpuc.ca.gov/rps/> (accessed November 2020).

California Energy Efficiency Strategic Plan. On September 18, 2008, the California Public Utilities Commission (CPUC) adopted California’s first Long-Term Energy Efficiency Strategic Plan, presenting a roadmap for energy efficiency in California. The Plan articulates a long-term vision and goals for each economic sector and identifies specific near-term, mid-term, and long-term strategies to assist in achieving those goals. The Plan also reiterates the following four specific programmatic goals known as the “Big Bold Energy Efficiency Strategies” that were established by the CPUC in Decisions D.07-10-032 and D.07-12-051:

- All new residential construction will be zero net energy (ZNE) by 2020.
- All new commercial construction will be ZNE by 2030.
- 50 percent of commercial buildings will be retrofitted to ZNE by 2030.
- 50 percent of new major renovations of State buildings will be ZNE by 2025.

4.3.4.3 Regional Regulations

There are no regional energy regulations that apply to the proposed Project.

4.3.4.4 Local Regulations

City of Laguna Woods General Plan. The City of Laguna Woods addresses energy in the Conservation Element of the City’s General Plan. The Conservation Element contains goals, policies, and implementing actions in relation to energy conservation and efficiency. The following goals, policies, and implementing actions related to energy are presented in the Conservation Element and are applicable to the proposed Project.

GOAL CO-4. Increase Energy resource Independence.

- **Policy CO-4.1:** Maintain energy reliability and affordability through conservation, efficiency, and independence.
 - Develop a protocol for monitoring electricity use.
 - Streamline development and permitting standards and programs to encourage renewable energy technologies and energy efficiency improvements.
 - Join one or more Property Assessed Clean Energy (PACE) Programs.
- **Policy CO-4.2:** Demonstrate sustainable energy resource leadership
 - Develop and implement municipal renewable energy technology and energy efficiency improvement projects.
 - Provide and facilitate energy-related public education opportunities.

4.3.5 Thresholds of Significance

The proposed Project may be deemed to have a significant impact with respect to energy if it would:

Threshold 4.3.1: Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Threshold 4.3.2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.3.6 Project Impacts

Threshold 4.3.1: **Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less Than Significant Impact. Implementation of the proposed Project would increase the demand for energy through day-to-day operations and fuel consumption associated with construction activities. This section discusses energy use resulting from implementation of the proposed Project and evaluates whether the proposed Project would result in the wasteful, inefficient, or unnecessary consumption of energy resources.

Construction. It is important to note that the proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. The zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites.

Construction activities associated with the future housing development allowed on the Proposed Housing Sites under the Proposed Project would occur through the horizon year 2045, which would cause short-term emissions of criteria air pollutants. The primary source of emissions is the operation of construction equipment. Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Construction activities would include demolition, grading, site preparation, building construction, architectural coating, and paving activities. Construction activities require energy associated with the manufacture and transportation of building materials, grading activities, and building construction. Construction activities also typically require electricity to power construction-related equipment and do not involve the consumption of natural gas.

Transportation energy represents the largest energy use during construction and would occur from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction worker vehicles that would use petroleum fuels (e.g., diesel fuel and/or gasoline). Therefore, the analysis of energy use during construction focuses on fuel consumption. Construction trucks and vendor trucks hauling materials to and from a site would be anticipated to use diesel fuel, whereas construction workers traveling to and from a site would be anticipated to use gasoline-powered vehicles. Fuel consumption from transportation uses depends on the type and number of trips, VMT, the fuel efficiency of the vehicles, and the travel mode.

Information regarding specific development projects is not yet known; however, due to the scale of development activity associated with the proposed Project, this analysis assumes that 1,196 housing units would be constructed over the approximately 22-year planning period. Construction emissions were estimated for the Project using CalEEMod. This analysis assumes that construction of the proposed Project would begin in 2023 and end in 2045, which was included in CalEEMod. In addition, this analysis assumes a worst-case demolition of all existing structures on the Potential Housing Sites, which would total approximately 485,195 square feet. Demolition, grading, and building activities would involve the use of standard earthmoving equipment such as large excavators, cranes, and other related equipment.

Estimates of fuel consumption (diesel fuel and gasoline) from construction equipment, construction trucks, and construction worker vehicles were based on default construction equipment assumptions and trip estimates from CalEEMod and fuel efficiencies from EMFAC2021. Fuel consumption estimates are presented in Table 4.3.A. CalEEMod output sheets and detailed energy calculations are included in Appendix B of this PEIR.

Table 4.3.A: Construction Energy Consumption Estimates

Energy Type	Total Energy Consumption
Gasoline (gallons)	2,388,442.6
Diesel Fuel (gallons)	1,933,161.3

Source: Compiled by LSA (November 2022).

As indicated in Table 4.3.A, the proposed Project is estimated to consume 2,388,442.6 gallons of gasoline and 1,933,161.3 gallons of diesel fuel during construction. As discussed above, the proposed Project would be constructed over an approximately 22-year planning period; therefore, when averaged over a 22-year period, the proposed Project would consume approximately 108,565.8 gallons of gasoline per year and 87,871.0 gallons of diesel fuel per year during construction. Based on fuel consumption obtained from EMFAC2021, approximately 1.2 billion gallons of gasoline and 154.1 million gallons of diesel will be consumed from vehicle trips in Orange County in 2022. Therefore, construction of the proposed Project would increase the annual construction generated fuel use in Orange County by approximately 0.01 percent for gasoline fuel usage and 0.06 percent for diesel fuel usage.

As such, Project construction would have a negligible effect on local and regional energy supplies. Furthermore, impacts related to energy use during construction would be temporary and relatively small in comparison to Orange County's overall use of the State's available energy resources. It is not expected that future residential development would include any unusual characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the State. In addition, construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs. The proposed Project would not cause or result in the need for additional energy facilities or an additional or expanded delivery system. For these reasons, fuel consumption during construction would not be inefficient, wasteful, or unnecessary.

Operation. As previously stated, the proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. The zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites.

Operational activities associated with the additional housing units would result in energy demand associated with natural gas use, electricity consumption, and fuel used for vehicle trips. Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Long-term operation associated with build out of the 1,196 housing units was calculated using CalEEMod. Energy and natural gas consumption was estimated for the Project using default energy intensities in CalEEMod. In addition, the proposed Project would also result in energy usage associated with gasoline and diesel fuel consumed by project-related vehicle trips. Trip generation rates for the proposed Project were based on the Project’s trip generation estimates. The proposed Project would generate approximately 746 net new average daily trips. The amount of operational fuel use was estimated using CARB’s EMFAC2021 model, which provided projections for typical daily fuel usage in Orange County.

Electricity, natural gas, and fuel usage estimates associated with the proposed Project are shown in Table 4.3.B.

Table 4.3.B: Operational Energy Consumption Estimates

Energy Type	Annual Energy Consumption
Electricity Consumption (kWh/year)	9,358,250.0
Natural Gas Consumption (therms/year)	286,113.0
Automotive Fuel Consumption	
Gasoline (gallons/year)	74,483.5
Diesel Fuel (gallons/year)	7,256.0

Source: Compiled by LSA (November 2022).
kWh = kilowatt-hours

As shown in Table 4.3.B, the estimated potential increase in electricity demand associated with build out of the 1,196 housing units is 9,358,250.0 kilowatt-hours (kWh) per year. Total electricity consumption in Orange County in 2020 was 19,733 GWh (19,733,139,603 kWh). Therefore, operation of the proposed Project would increase the annual electricity consumption in Orange County by approximately 0.05 percent.

As shown in Table 4.3.B, the estimated potential increase in natural gas demand associated with build out of the 1,196 housing units is 286,113 therms per year. Total natural gas consumption in Orange County in 2020 was approximately 594.6 million therms (594,632,076 therms). Therefore, operation of the proposed Project would negligibly increase the annual natural gas consumption in Orange County by approximately 0.05 percent.

Electrical and natural gas demand associated with Project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. Furthermore, the proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. All future residential development would be required to adhere to all federal, State, and local requirements for energy efficiency, including the latest Title 24 standards. Title 24 building energy efficiency standards establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy usage. Impacts are considered less than significant, and no mitigation is required.

Build out of the 1,196 housing units would also result in energy usage associated with gasoline and diesel fuel consumed by project-related vehicle trips. As shown in Table 4.3.B, fuel use associated with the vehicle trips generated by the proposed Project is estimated at approximately 74,483.5 gallons of gasoline and 7,256.0 gallons of diesel fuel per year. Based on fuel consumption obtained from EMFAC2021, approximately 1.2 billion gallons of gasoline and 154.1 million gallons of diesel will be consumed from vehicle trips in Orange County in 2022. Therefore, vehicle trips associated with the proposed Project would increase the annual fuel use in Orange County by less than 0.01 percent for gasoline fuel usage and less than 0.01 percent for diesel fuel usage. Fuel consumption associated with vehicle trips generated by Project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. Of the Potential Housing Sites, 9 sites (Sites 1–8 and Site 15) would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per acre (du/ac). Five sites (Sites 9–12 and Site 17) would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites (Sites 13 and 16) would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and Site 14 would be within the Residential Medium Density Overlay, which would allow between 20–30 du/ac.

The proposed Project would also amend the zoning on 12 additional properties. The zoning districts on 10 properties (Site 18 and Sites 21–29) would be changed from Community Commercial, Open Space – Recreation, Open Space – Passive, and Residential Community to Community Facilities – Public/Institutional. The zoning districts on the other two properties would be changed from Residential Community to Open Space – Passive (Site 19) and from Residential Multifamily to Open Space – Recreation (Site 20). The proposed Project is intended to decrease reliance on the automobile and encourage active lifestyles through policies and in-fill development that increase the safety, convenience, and integration of multiple transportation modes. Impacts are considered to be less than significant, and no mitigation is required.

The proposed Project also includes text changes in the Land Use Element. These text changes provide internal consistency between General Plan Elements and would not facilitate or entitle any physical development that would result in energy impacts. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan update. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect

current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development that would result in impacts to energy. The Project also includes text changes to the existing General Plan Circulation Element and renaming it to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have potential impacts related to energy. As discussed in Chapter 3.0, Project Description, the City is substantially built out, and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network. Thus, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in impacts to energy. Therefore, the proposed Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. Impacts would be less than significant, and no mitigation is required.

Threshold 4.3.2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. In 2002, the State Legislature passed SB 1389, which required the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels for the Integrated Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for ZEVs and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The most recently adopted report includes the *2021 Integrated Energy Policy Report*¹⁵ and the *2022 Integrated Energy Policy Report Update*.¹⁶ The City relies on the State integrated energy plan and does not have its own local plan to address renewable energy or energy efficiency.

As indicated above, energy usage during project-related construction activities would be temporary in nature and would be relatively small in comparison to the overall use in the County. In addition, energy usage associated with operation of the proposed Project would be relatively small in comparison to the overall use in Orange County, and the State’s available energy resources. Therefore, energy impacts at the regional level would be negligible. Because California’s energy conservation planning actions are conducted at a regional level, and because the proposed Project’s

¹⁵ CEC. 2022a. *2021 Integrated Energy Policy Report*. California Energy Commission. Docket Number: 21-IEPR-01.

¹⁶ CEC. 2022b. *2020 Integrated Energy Policy Report Update*. California Energy Commission. Docket Number: 22-IEPR-01.

total impact on regional energy supplies would be minor, the proposed Project would not conflict with or obstruct California's energy conservation plans as described in the CEC's Integrated Energy Policy Report. Additionally, as demonstrated above under Threshold 4.3.1, the proposed Project would not result in the inefficient, wasteful, and unnecessary consumption of energy. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no mitigation is required.

4.3.7 Level of Significance Prior to Mitigation

The proposed Project would result in less than significant impacts related to energy, and no mitigation is required.

4.3.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are applicable to the proposed Project pertaining to energy.

4.3.9 Cumulative Impacts

The geographic area for cumulative analysis of electricity is that of the SCE service area, while the geographic area for cumulative analysis of natural gas service is that of the SoCalGas service area. Build out associated with the proposed Project would result in an increased services demand in electricity and natural gas. Although the proposed Project would result in a net increase in demand for electricity, this increase would not require SCE to expand or construct infrastructure that could cause substantial environmental impacts. As discussed previously, total electricity consumption in the SCE service area in 2020 was 83,532.6 GWh. By 2030, consumption is anticipated to increase by approximately 12,000 GWh for the low-demand scenario and by 22,000 GWh for the high-demand scenario.¹⁷ While this forecast represents a large increase in electricity consumption, the proposed Project's share of cumulative consumption would be negligible. The proposed Project, in combination with cumulative development, is well within SCE's system-wide net annual increase in electricity supplies over the 2018 to 2030 period, and there are sufficient planned electricity supplies in the region for estimated net increases in energy demands.

Similarly, additional natural gas infrastructure is not anticipated due to cumulative development. Total natural gas consumption in the SoCalGas service area in 2020 was 5,231 million therms. Between 2018 and 2030, total natural gas consumption in the SoCalGas service area is forecast to remain steady for the low- and mid-demand scenarios and to increase by approximately 650 million therms in the high-demand scenario due to intense energy efficiency efforts.¹⁸ The proposed Project's share of cumulative consumption of natural gas in the SoCalGas service area would be negligible. It is anticipated that SoCalGas would be able to meet the natural gas demand of the related projects without additional facilities. In addition, both SCE and SoCalGas demand forecasts include the growth contemplated by the proposed Project and the related projects. Increased

¹⁷ CEC. 2018. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: <https://efiling.energy.ca.gov/getdocument.aspx?tn=223244> (accessed November 2022).

¹⁸ Ibid.

energy efficiency to comply with building energy efficiency standards will reduce energy consumption on a per-square-foot basis. Furthermore, utility companies are required to increase their renewable energy sources to meet the Renewable Portfolio Standards mandate of 60 percent renewable supplies by 2030. SCE and SoCalGas plan to continue to provide reliable service to their customers and upgrade their distribution systems as necessary to meet future demand.

Transportation energy use would also increase; however, this transportation energy use would not represent a major amount of energy use when compared to the amount of existing development and to the total number of vehicle trips and VMT throughout Orange County and the region. The proposed Project and related projects are required to comply with various federal and State government legislation to improve energy efficiency in buildings, equipment, and appliances, and reduce VMT.

As such, the proposed Project does not result in an inefficient, wasteful, and unnecessary consumption of energy. Therefore, the proposed Project's contribution to impacts related to the inefficient, wasteful, and unnecessary consumption of energy would not be cumulatively considerable, and no mitigation is required.

4.3.10 Level of Significance After Mitigation

No mitigation is required. The proposed Project would not result in potentially significant impacts related to energy.

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4.4 GREENHOUSE GAS EMISSIONS

4.4.1 Introduction

This section has been prepared for the proposed Laguna Woods General Plan and Zoning Code Update (proposed Project) using methodologies and assumptions recommended in the air quality impact assessment guidelines of the South Coast Air Quality Management District (SCAQMD). This section summarizes existing greenhouse gas (GHG) emissions and discusses global climate change, its causes, and the contribution of human activities. This section also estimates the likely GHG emissions that would result from construction and operational activities associated with development of the proposed Project, including vehicular traffic, energy consumption and other emission sources.

4.4.1.1 Scoping Process

The City of Laguna Woods (City) received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). One comment letter from the Southern California Association of Governments (SCAG) included comments related to GHG emissions.

Pursuant to Senate Bill (SB) 375, SCAG) is the designated Regional Transportation Planning Agency under State law and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS). SCAG's comments are intended to assist local jurisdictions and Project proponents to implement projects that have the potential to contribute to the attainment of Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) goals and align with RTP/SCS policies.

4.4.2 Methodology

The proposed Project would result in GHG emissions from construction and operational sources. Construction activities would generate emissions from off-road construction equipment, and on roadways as a result of construction-related truck hauling, vendor deliveries, and worker commuting. Operational GHG emissions are typically associated with mobile sources (e.g., vehicle trips), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). This analysis uses the California Emissions Estimator Model (CalEEMod) version 2020.4.0 to quantify GHG emissions for both construction and operation associated with build out of the proposed Project. CalEEMod output is contained in Appendix B.

4.4.3 Existing Environmental Setting

4.4.3.1 Background

The following section provides background information on GHGs and global climate change.

Global Climate Change. Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose $0.6 \pm 0.2^\circ$ Celsius ($^\circ\text{C}$) or $1.1 \pm 0.4^\circ$ Fahrenheit ($^\circ\text{F}$) in the 20th century.

The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO₂) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.¹

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are the following:

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous oxide (N₂O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO₂, methane, and N₂O, some gases, like HFCs, PFCs, and SF₆ are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this analysis, the term “GHGs” will refer collectively only to the six gases listed above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e). Table

¹ The temperature on Earth is regulated by a system commonly known as the “greenhouse effect.” Just as the glass in a greenhouse allows heat from sunlight in and reduces the heat escaping, GHGs like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of GHGs results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

4.4.A shows the GWP for each type of GHG. For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than carbon dioxide.

Table 4.4.A: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide (CO ₂)	50-200	1
Methane (CH ₄)	12	25
Nitrous Oxide (N ₂ O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF ₄)	50,000	7,390
PFC: Hexafluoromethane (C ₂ F ₆)	10,000	12,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800

Source: *Climate Change 2007: The Physical Science Basis* (Intergovernmental Panel on Climate Change [IPCC] 2007).

The following summarizes the characteristics of the six GHGs and black carbon. Black carbon also contributes to climate change and is therefore discussed below.

Carbon Dioxide. In the atmosphere, carbon generally exists in its oxidized form, as CO₂. Natural sources of CO₂ include the respiration (breathing) of humans, animals and plants, volcanic out gassing, decomposition of organic matter and evaporation from the oceans. Human caused sources of CO₂ include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO₂ each year, far outweighing the 7 billion tons of manmade emissions of CO₂ each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of manmade CO₂, and consequently, the gas is building up in the atmosphere.

In 2019, total annual CO₂ accounted for approximately 83 percent of California's overall GHG emissions.² Transportation is the single largest source of CO₂ in California, which is primarily comprised of on-road travel. Electricity production, industrial and residential sources also make important contributions to CO₂ emissions in California.

Methane. Methane (CH₄) is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH₄ emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation in dairy cows, manure management, and rice cultivation are also significant sources of CH₄ in California. Total annual emissions of CH₄ accounted for approximately 9 percent of GHG emissions in California in 2019.

² California Air Resources Board (CARB). 2021b. GHGs Descriptions & Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed November 2022).

Nitrous Oxide. Nitrous oxide (N₂O) is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N₂O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N₂O emissions in California. Nitrous oxide emissions accounted for approximately 3 percent of GHG emissions in California in 2019.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.³ PFCs and SF₆ are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry has resulted in greater use of PFCs. HFCs, PFCs, and SF₆ accounted for about 5 percent of GHG emissions in California in 2019.⁴

Black Carbon. Black carbon is the most strongly light-absorbing component of particulate matter (PM) formed by burning fossil fuels such as coal, diesel, and biomass. Black carbon is emitted directly into the atmosphere in the form of particulate matter less than 2.5 microns in size (PM_{2.5}) and is the most effective form of PM, by mass, at absorbing solar energy. Per unit of mass in the atmosphere, black carbon can absorb one million times more energy than CO₂.⁵ Black carbon contributes to climate change both directly, such as absorbing sunlight, and indirectly, such as affecting cloud formation. However, because black carbon is short-lived in the atmosphere, it can be difficult to quantify its effect on global warming.

Most U.S. emissions of black carbon come from mobile sources (52 percent), particularly from diesel fueled vehicles.⁶ The other major source of black carbon is open biomass burning, including wildfires, although residential heating and industry also contribute. The CARB estimates that the annual black carbon emissions in California will be reduced approximately 50 percent below 2013 levels by 2030.⁷

Effects of Global Climate Change. Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and air quality. There may be direct

³ The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

⁴ CARB. 2021b, op cit.

⁵ United States Environmental Protection Agency (USEPA). 2017. Black Carbon, Basic Information. February 14, 2017. Website: [19january2017snapshot.epa.gov/www3/airquality/blackcarbon/basic.html](https://www.epa.gov/airquality/blackcarbon/basic.html) (accessed November 2022).

⁶ Ibid.

⁷ CARB. 2017b. *Short-Lived Climate Pollutant Reduction Strategy*. March. Website: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf (accessed November 2022).

temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global climate change may also result in impacts to local air quality from increased ground-level ozone and particulate matter.⁸

Additionally, according to the 2006 California Climate Action Team (CAT) Report,⁹ the following climate change effects, which are based on trends established by the United Nations Intergovernmental Panel on Climate Change (IPCC), can be expected in California over the course of the next century:

- The loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;¹⁰
- Rise in global average sea level, primarily due to thermal expansion and melting of glaciers and ice caps in the Greenland and Antarctic ice sheets;¹¹
- Changes in weather that include widespread changes in precipitation, ocean salinity, wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;¹²
- Decline of the Sierra snowpack, which accounts for approximately one-half of the surface water storage in California by 70 percent to as much as 90 percent over the next 100 years;¹³
- Increase in the number of days conducive to ozone (O₃) formation by 25 to 85 percent (depending on the future temperature scenario) in high O₃ areas of Los Angeles and the San Joaquin Valley by the end of the 21st century;¹⁴ and
- High potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level.¹⁵

⁸ USEPA. 2020. Air Quality and Climate Change Research. Website: <https://www.epa.gov/air-research/air-quality-and-climate-change-research> (accessed November 2022).

⁹ California Environmental Protection Agency (CalEPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

¹⁰ Ibid.

¹¹ Ibid.

¹² Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. February.

¹³ CalEPA. 2006, op. cit.

¹⁴ Ibid.

¹⁵ Ibid.

A summary of these potential effects is provided in Table 4.4.B, below.

Table 4.4.B: Potential Impacts of Global Warming and Expected Consequences for California

Potential Water Resource Impacts	Anticipated Consequences Statewide
Reduction of the State’s average annual snowpack	<ul style="list-style-type: none"> • The decline of the Sierra snowpack would lead to a loss in half of the surface water storage in California by 70% to 90% over the next 100 years • Potential loss of 5 million acre-feet or more of average annual water storage in the State’s snowpack • Increased challenges for reservoir management and balancing the competing concerns of flood protection and water supply • Higher surface evaporation rates with a corresponding increase in tropospheric water vapor
Rise in average sea level	<ul style="list-style-type: none"> • Potential economic impacts related to coastal tourism, commercial fisheries, coastal agriculture, and ports • Increased risk of flooding, coastal erosion along the State’s coastline, seawater intrusion into the Sacramento-San Joaquin River Delta (Delta) and levee systems
Changes in weather	<ul style="list-style-type: none"> • Changes in precipitation, ocean salinity, and wind patterns • Increased likelihood for extreme weather events, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones
Changes in the timing, intensity, location, amount, and variability of precipitation	<ul style="list-style-type: none"> • Potential increased storm intensity and increased potential for flooding • Possible increased potential for droughts • Long-term changes in vegetation and increased incidence of wildfires • Changes in the intensity and timing of runoff • Possible increased incidence of flooding and increased sedimentation • Sea level rise and inundation of coastal marshes and estuaries • Increased salinity intrusion into the Delta • Increased potential for Delta levee failure • Increased potential for salinity intrusion into coastal aquifers (groundwater) • Increased potential for flooding near the mouths of rivers due to backwater effects
Increased water temperatures	<ul style="list-style-type: none"> • Increased environmental water demand for temperature control • Possible increased problems with foreign invasive species in aquatic ecosystems • Potential adverse changes in water quality, including the reduction of dissolved oxygen levels • Possible critical effects on listed and endangered aquatic species
Changes in urban and agricultural water demand	<ul style="list-style-type: none"> • Changes in demand patterns and evapotranspiration
Increase in the number of days conducive to O ₃ formation	<ul style="list-style-type: none"> • Increased temperatures • Potential health effects, including adverse impacts to respiratory systems

Source: *Environmental Water Account Draft Supplemental EIS/EIR to the Environmental Water Account Final EIS/EIR, Bureau of Reclamation Mid-Pacific Region, Sacramento, California (U.S. Department of the Interior, October 2007).*

EIR = Environmental Impact Report

EIS = Environmental Impact Statement

O₃ = ozone

Effects of Rising Ocean Levels in California. Rising ocean levels, more intense coastal storms, and warmer water temperatures may increasingly threaten the Long Beach coastal region. As previously described, global surface temperatures have increased by 1.5 degrees Fahrenheit (°F) during the period from 1880 to 2012, with temperatures anticipated to rise in California by 3 to 10.5°F by the end of the century.

Rising sea levels may affect the natural environment in the coming decades by eroding beaches, converting wetlands to open water, exacerbating coastal flooding, and increasing the salinity of estuaries and freshwater aquifers. Coastal headlands and beaches are expected to erode at a faster pace in response to future sea level rise. The California Coastal Commission estimates that 450,000 acres of wetlands exist along the California coast,¹⁶ but additional work is needed to evaluate the extent to which these wetlands would be degraded over time, or to what extent new wetland habitat would be created if those lands are protected from further development. Cumulatively, the effects of sea level rise may be combined with other potential long-term factors such as changes in sediment input and nutrient runoff. The cumulative impacts of physical and biological change due to sea level rise on the quality and quantity of coastal habitats are not well understood.¹⁷

Sea level along the west coast of the United States is affected by a number of factors, including climate patterns such as El Niño, effects from the melting of modern and ancient ice sheets, and geologic processes such as plate tectonics. Regional projections for California, Oregon, and Washington show a sharp distinction at Cape Mendocino in northern California. South of that point, sea-level rise is expected to be very close to global projections. Projections are lower north of Cape Mendocino because the land is being pushed upward as the ocean plate moves under the continental plate along the Cascadia Subduction Zone.

Emissions Inventories. An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, and California GHG emission inventories.

Global Emissions. Worldwide emissions of GHGs in 2018 totaled 25.6 billion metric tons (MT) of CO₂e. Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change.¹⁸

¹⁶ California Coastal Commission (CCC). Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone. Website: <http://www.coastal.ca.gov/wetrev/wetch4.html> (accessed November 2022).

¹⁷ Climate Change Science Program (CCSP) 4.1. January 15, 2009, 1 of 784 Final Report, United States CCSP, Synthesis and Assessment Product 4.1. Coastal Sensitivity to Sea-Level Rise: A Focus on the Mid-Atlantic Region. Lead Agency: U.S. Environmental Protection Agency, Other Key Participating Agencies: U.S. Geological Survey, National Oceanic and Atmospheric Administration. Contributing Agencies: Department of Transportation.

¹⁸ United Nations Framework Convention on Climate Change (UNFCCC). 2021. GHG Data from UNFCCC. Website: unfccc.int/process-and-meetings/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc/ghg-data-from-unfccc (accessed November 2022).

United States Emissions. In 2019, the year for which the most recent data are available, the United States emitted about 6,558 million metric tons of CO₂e (MMT CO₂e). Overall, emissions in 2019 decreased by 1.7 percent since 2018 and were 13 percent lower than 2005 levels. This decrease was driven largely by a decrease in emissions from fossil fuel combustion resulting from a decrease in total energy use in 2019 compared to 2018 and a continued shift from coal to natural gas and renewables in the electric power sector. Of the six major sectors—residential, commercial, agricultural, industry, transportation, and electricity generation—transportation accounted for the highest amount of GHG emissions in 2019 (approximately 29 percent), with electricity generation second at 25 percent and emissions from industry third at 23 percent.¹⁹

State of California Emissions. The State emitted approximately 418.2 MMT CO₂e emissions in 2019, 7.2 MMT CO₂e lower than 2018 levels and almost 13 MMT CO₂e below the 2020 GHG limit of 431 MMT CO₂e.²⁰ The California Air Resources Board (CARB) estimates that transportation was the source of approximately 40 percent of the State’s GHG emissions in 2019, followed by industrial sources at approximately 21 percent and electricity generation at 14 percent. The remaining sources of GHG emissions were agriculture at 8 percent, residential activities at 7 percent, commercial activities at 4 percent, high GWP at 5 percent, and waste at 2 percent.²¹

4.4.4 Regulatory Setting

4.4.4.1 Federal Regulations

Federal Clean Air Act. The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the United States Environmental Protection Agency (USEPA) has the authority to regulate CO₂ emissions under the federal Clean Air Act (CAA). While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the federal Clean Air Act, finding that six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

In October 2012, the USEPA and the NHTSA, on behalf of the U.S. Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 *Federal Register* 62624). The NHTSA’s CAFE standards have been enacted under the Energy Policy and Conservation

¹⁹ USEPA. 2021. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019. Website: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2019> (accessed November 2022).

²⁰ CARB. 2021a. *California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators Report*. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf (accessed November 2022).

²¹ Ibid.

Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO₂ per mile for the fleet of cars and light-duty trucks by model year 2025 (77 *Federal Register* 62630).

On March 21, 2020, the USEPA and NHTSA finalized the SAFE Vehicles Rule. The SAFE Vehicles Rule amends certain existing CAFE and tailpipe CO₂ emissions standards for passenger cars and light trucks and establish new standards, all covering model years 2021 through 2026. More specifically, NHTSA set new CAFE standards for model years 2022 through 2026 and amended its 2021 model year CAFE standards, and the USEPA amended its CO₂ emissions standards for model years 2021 and later. On May 12, 2021, the NHTSA published a notice of proposed rulemaking in the *Federal Register*, proposing to repeal key portions of the SAFE Vehicles Rule that would have reduced CAFE standards. The final rule repealing portions of the SAFE Vehicles Rule was published on December 29, 2021. The repeal will allow California to set its own GHG standards if it chooses, even if the emissions standards conflict with CAFE standards enacted by the U.S. Department of Transportation.

4.4.4.2 State Regulations

The California Air Resources Board (CARB) is the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 1493 (2002). In a response to the transportation sector's significant contribution to California CO₂ emissions, Assembly Bill (AB) 1493 was enacted on July 22, 2002. AB 1493 requires the CARB to set GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. These standards (starting in model years 2009 to 2016) were approved by the CARB in 2004, but the needed waiver of Clean Air Act Preemption was not granted by the USEPA until June 30, 2009. CARB responded by amending its original regulation, now referred to as Low Emission Vehicle III, to take effect for model years starting in 2017 to 2025. The Trump administration revoked California's waiver in 2019, but the Biden administration restored California's waiver in 2021.

Executive Order S-3-05 (2005). Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05 on June 1, 2005, which proclaimed that California is vulnerable to the impacts of climate change. To combat those concerns, the executive order established California's GHG emissions reduction targets, which established the following goals:

- GHG emissions should be reduced to 2000 levels by 2010;
- GHG emissions should be reduced to 1990 levels by 2020; and
- GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

The Secretary of the California Environmental Protection Agency (CalEPA) is required to coordinate efforts of various State agencies in order to collectively and efficiently reduce GHGs. A biannual

progress report must be submitted to the Governor and State Legislature disclosing the progress made toward GHG emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, the coastline, and forestry, and report possible mitigation and adaptation plans to address these impacts.

The Secretary of CalEPA leads this CAT made up of representatives from State agencies as well as numerous other boards and departments. The CAT members work to coordinate statewide efforts to implement global warming emission reduction programs and the State's Climate Adaptation Strategy. The CAT is also responsible for reporting on the progress made toward meeting the statewide GHG targets that were established in the executive order and further defined under AB 32, the "Global Warming Solutions Act of 2006." The first CAT Report to the Governor and the Legislature was released in March 2006, which it laid out 46 specific emission reduction strategies for reducing GHG emissions and reaching the targets established in the executive order. The most recent report was released in December 2020.

Assembly Bill 32 (2006), California Global Warming Solutions Act. California's major initiative for reducing GHG emissions is AB 32, which was passed by the State legislature on August 31, 2006. This effort was aimed at reducing GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 MMT CO₂e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT CO₂e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT CO₂e under a business-as-usual scenario (this is a reduction of 42 MMT CO₂e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO₂e);
- The Low-Carbon Fuel Standard (15.0 MMT CO₂e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO₂e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO₂e).

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related GHG targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO₂e by 2020.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020, and also sets the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,²² to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

The 2022 Scoping Plan²³ was approved in December 2022 and assesses progress towards achieving the SB 32 2030 target and lays out a path to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Senate Bill 97 (2007). SB 97, signed by the Governor in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code [PRC], Sections 21083.05 and 21097), acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA.

The California Natural Resources Agency adopted the amendments to the *State CEQA Guidelines* in November 2018, which went into effect in December 2018. The amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs when they perform individual project analyses.

²² CARB. 2017a. *California's 2017 Climate Change Scoping Plan*. November.

²³ CARB. 2022. *2022 Scoping Plan Update*. May 10. Website: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents> (accessed March 2023).

Senate Bill 375 (2008). SB 375, the Sustainable Communities and Climate Protection Act, which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. On September 23, 2010, the CARB adopted the vehicular GHG emissions reduction targets that had been developed in consultation with the Metropolitan Planning Organization (MPOs); the targets require a 13 to 19 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant GHG reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs such as the Fresno Council of Governments will work with local jurisdictions in the development of Sustainable Communities Strategy (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. Pursuant to SB 375, the Los Angeles/Southern California reduction targets for per capita vehicular emissions are 19 percent by 2035 as shown in Table 4.4.C.

Table 4.4.C: Senate Bill 375 Regional Greenhouse Gas Emissions Reduction Targets

Metropolitan Planning Organization		By 2035 (%)
San Francisco Bay Area		19
San Diego		19
Sacramento		19
Central Valley/San Joaquin		13–16
Los Angeles/Southern California		19

Source: California Air Resources Board (2018).

Executive Order B-30-15 (2015). Governor Jerry Brown signed EO B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. SB 350, signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California’s renewable portfolio standard from 33 percent to 50 percent; and
- Increasing energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission (CPUC) for the private utilities and by the CEC for municipal utilities. Each utility must

submit a procurement plan showing it will purchase clean energy to displace other non-renewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to state energy agencies under existing law. The addition made by this legislation requires state energy agencies to plan for, and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016 the Legislature passed, and the Governor signed, SB 32, and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown’s April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State’s 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an IPCC analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO₂e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100 (SB 100). On September 10, 2018, Governor Brown signed SB 100, which raises California’s Renewables Portfolio Standard (RPS) requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. EO B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” EO B-55-18 directs the CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO₂e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Title 24, Building Standards Code and CALGreen Code. In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen Code), which sets performance standards for residential and non-residential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code is updated every 3 years and was most recently updated in 2022 to include new mandatory measures for residential as well as non-residential uses; the new measures took effect on January 1, 2023.

California Building Efficiency Standards (Title 24, Part 6). The California Building Standards Code, or Title 24 of the California Code of Regulations (CCR) contains the regulations that govern the construction of buildings in California. Within the Building Standards Code, two parts pertain to the incorporation of both energy efficient and green building elements into land use development. Part 6 is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. These standards were first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption and are updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2023, must follow the 2022 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

Cap and Trade. The development of a cap-and-trade program was included as a key reduction measure of the CARB AB 32 Climate Change Scoping Plan. The cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions by 80 percent from 1990 levels by 2050. The cap-and-trade emissions trading program developed by the CARB took effect on January 1, 2012, with enforceable compliance obligations beginning January 1, 2013. The cap-and-trade program aims to regulate GHG emissions from the largest producers in the State by setting a statewide firm limit, or cap, on allowable annual GHG emissions. The cap was set in 2013 at approximately 2 percent below the emissions forecast for 2020. In 2014, the cap declined approximately 2 percent. Beginning in 2015 and continuing through 2020, the cap has been declining approximately 3 percent annually. The CARB administered the first auction on November 14, 2012, with many of the qualified bidders representing corporations or organizations that produce large amounts of GHG emissions, including energy companies, agriculture and food industries, steel mills, cement companies, and universities. On January 1, 2015, compliance obligation began for distributors of transportation fuels, natural gas, and other fuels. The cap-and-trade program was initially slated to sunset in 2020 but the passage of SB 398 in 2017 extended the program through 2030.²⁴

Executive Order N-79-20. EO N-79-20, which was signed by the Governor on September 23, 2020, sets the following goals for the State: 100 percent of in-state sales of new passenger cars and trucks shall be zero emissions by 2035; 100 percent of medium- and heavy-duty vehicles in the State shall be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and 100 percent of off-road vehicles and equipment in the State shall be zero-emission by 2035, where feasible.

California Integrated Waste Management Act. To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal. In

²⁴ CARB. 2014. Cap-and-Trade Program. Website: www.arb.ca.gov/cc/capandtrade/capandtrade.htm (accessed September 2022).

2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. The resulting 2012 Mandatory Commercial Recycling Regulation requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week shall arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act. In April 2016, AB 1826 further modified the California Integrated Waste Management Act, requiring businesses that generate a specified amount of organic waste per week to arrange for recycling services for that organic waste in a specified manner. Diverting organic waste from landfills reduces emissions of CH₄. This is equivalent to reducing anaerobic decomposition of organic waste that would have otherwise occurred in landfills where organic waste is often buried with other inorganic waste.

Low Carbon Fuel Standard. In January 2007, EO S-01-07 established an LCFS. This executive order calls for a statewide goal to be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and that an LCFS for transportation fuels be established for California. The LCFS applies to all refiners, blenders, producers, or importers ("Providers") of transportation fuels in California, including fuels used by off-road construction equipment. In June 2007, CARB adopted the LCFS under AB 32 pursuant to Health and Safety Code Section 38560.5, and, in April 2009, CARB approved the new rules and carbon intensity reference values with new regulatory requirements taking effect in January 2011. The standards require providers of transportation fuels to report on the mix of fuels they provide and demonstrate they meet the LCFS intensity standards annually. This is accomplished by ensuring that the number of "credits" earned by providing fuels with a lower carbon intensity than the established baseline (or obtained from another party) is equal to or greater than the "deficits" earned from selling higher intensity fuels. In response to certain court rulings, CARB re-adopted the LCFS regulation in September 2015, and the LCFS went into effect on January 1, 2016. In 2018, CARB approved amendments to the regulation to readjust carbon intensity benchmarks to meet California's 2030 GHG reductions targets under SB 32. These amendments include opportunities to promote zero emission vehicle (ZEV) adoption, carbon capture and sequestration, and advanced technologies for decarbonization of the transportation sector.

Advanced Clean Cars Program. In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of ZEVs, into a single package of regulatory standards for vehicle model years 2017 through 2025. The new regulations strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's ZEVs regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the State. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the

rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 40 percent fewer GHGs and 75 percent fewer smog-forming emissions than 2012 model year vehicles.

Executive Order B-48-18. In January 2018, Governor Brown signed EO B-48-18 requiring all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 electric vehicle charging stations by 2025. It specifies that 10,000 of the electric vehicle charging stations should be direct current fast chargers. This order also requires all State entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a Plug-in Charging Station Design Guidebook and update the 2015 Hydrogen Station Permitting Guidebook to aid in these efforts. All State entities are required to participate in updating the 2016 Zero-Emissions Vehicle Action Plan to help expand private investment in ZEV infrastructure with a focus on serving low-income and disadvantaged communities. Additionally, all State entities are to support and recommend policies and actions to expand ZEV infrastructure at residential land uses, through the LCFS Program, and recommend how to ensure affordability and accessibility for all drivers.

4.4.4.3 Regional Regulations

The City is part of the South Coast Air Basin (Basin) and is under the jurisdiction of SCAG and the South Coast Air Quality Management District (SCAQMD). SCAG's 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted September 3, 2020, is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. A GHG consistency analysis was conducted to determine whether or not the proposed Project would be consistent with the RTP/SCS.

Southern California Association of Governments. SCAG is a regional council consisting of the following six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In total, the SCAG region encompasses 191 cities and over 38,000 square miles within Southern California. SCAG is the MPO serving the region under federal law and serves as the Joint Powers Authority, the Regional Transportation Planning Agency, and the Council of Governments under State law. As the Regional Transportation Planning Agency, SCAG prepares long-range transportation plans for the Southern California region, including the RTP/SCS and the 2008 Regional Comprehensive Plan (RCP).

On September 3, 2020, SCAG adopted Connect SoCal—The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS).²⁵ In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled (VMT) from automobiles and light-duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, CARB has set GHG reduction targets at 8 percent below 2005 per capita emissions

²⁵ Southern California Association of Governments (SCAG). 2020. Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176 (accessed November 2021).

levels by 2020, and 19 percent below 2005 per capita emissions levels by 2035. The RTP/SCS lays out a strategy for the region to meet these targets. Overall, the SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high-quality transit areas and livable corridors, and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles.²⁶ However, the SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

South Coast Air Quality Management District. In 2008, the SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the Basin. The Working Group developed several different options that are contained in the SCAQMD 2008 draft guidance document titled Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans²⁷ that could be applied by lead agencies. On September 28, 2010, SCAQMD Working Group Meeting #15 provided further guidance, including a tiered approach for evaluating GHG emissions for development projects where the SCAQMD is not the lead agency. The SCAQMD has not presented a finalized version of these thresholds to the governing board.

The SCAQMD identifies the emissions level for which a project would not be expected to substantially conflict with any State legislation adopted to reduce statewide GHG emissions. As such, the utilization of a service population represents the rates of emissions needed to achieve a fair share of the State's mandated emissions reductions. Overall, the SCAQMD identifies a GHG efficiency level that, when applied statewide or to a defined geographic area, would meet the post-2020 emissions targets as required by AB 32 and SB 32. If projects are able to achieve targeted rates of emissions per the service population, the State will be able to accommodate expected population growth and achieve economic development objectives, while also abiding by AB 32's emissions target and future post-2020 targets.

4.4.4.4 Local Regulations

City of Laguna Woods General Plan. The City of Laguna Woods addresses greenhouse gas emissions in the Conservation Element of the City's General Plan. The Conservation Element contains goals, policies, and implementing actions that work towards reducing GHG emissions in the community. The following goals, policies, and implementing actions related to GHG emissions are presented in the Conservation Element²⁸ and are applicable to the proposed Project:

²⁶ SCAG. 2020. Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176 (accessed November 2021).

²⁷ South Coast Air Quality Management District (SCAQMD). 2008. Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans.

²⁸ City of Laguna Woods. 2002. Laguna Woods General Plan, Conservation Element. October. Website: <https://www.cityoflagunawoods.org/wp-content/uploads/2015/07/2015-07-29-Adopted-CLW-Conservation-Element.pdf> (accessed June 2022).

GOAL CO-8. Reduce local greenhouse gas emissions

- **Policy CO-8.1:** Control sources of greenhouse gas emissions
 - Develop and implement a Climate Action Plan that is aligned with federal and state standards and includes long-term strategies for reducing greenhouse gas emissions across all sectors.
- **Policy CO-8.2:** Demonstrate climate change leadership
 - Ensure that municipal solid waste handling services employ collection practices that minimize vehicle miles traveled and the consumption of fossil fuels.
 - Incorporate climate adaptation into long-range planning documents

City of Laguna Woods Climate Adaptation Plan. The City of Laguna Woods Climate Adaptation Plan (CAP)²⁹, is a comprehensive planning document outlining the City’s proposed approach to address climate impacts on Laguna Woods. The goal is to ensure the community and physical assets are better protected from the impacts of climate change. The vision of the Climate Adaptation Plan is to help the City thrive in likely future climate conditions, with a particular emphasis on climate change impacts on wildlife, individual well-being, public health, and water supply. The Climate Adaptation Plan includes a roadmap for implementing new goals, polices, objectives, and implementing actions that will help the City pursue to further climate adaptation efforts. The following goals and policies are applicable to the proposed Project.

- **Goal 1. Increase resilience to climate change-related hazards**
 - **Policy Objective 1.1:** Maintain low levels of heat related illnesses and death.
 - **Policy Objective 1.2:** Reduce wildfire impacts.
- **Goal 2. Increase resource dependence**
 - **Policy Objective 2.1:** Maintain electricity reliability and affordability through conservation, efficiency, and independence.
 - **Policy Objective 2.2:** Maintain potable water reliability and affordability through water conservation, efficiency, and independence.
 - **Policy Objective 2.3:** Demonstrate sustainable resource leadership.

²⁹ City of Laguna Woods. 2014. Laguna Woods Climate Adaptation Plan. December. Website: <https://www.adaptationclearinghouse.org/resources/city-of-laguna-woods-climate-adaptation-plan.html#:~:text=Maintain%20low%20levels%20of%20heat,water%20conservation%2C%20efficiency%2C%20and%20independence> (accessed June 2022).

- **Goal 3. Sustain and advance climate adaptation efforts**

- **Policy Objective 3.1:** Institutionalize climate adaptation as citywide policy.
- **Policy Objective 3.2:** Develop regional, state, national, and private climate adaptation partnerships.
- **Policy Objective 3.3:** Continually monitor and update this Climate Adaptation Plan.

4.4.5 Thresholds of Significance

The proposed Project may be deemed to have a significant impact with respect to GHG emissions if it would:

Threshold 4.4.1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Threshold 4.4.2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases.

4.4.5.1 Regional Emissions Thresholds

The SCAQMD has adopted a significance threshold of 10,000 MT CO₂e per year (MT CO₂e/yr) for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting held in September 2010 (Meeting No. 15), SCAQMD proposed to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

- **Tier 1. Exemptions:** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2. Consistency with a locally adopted GHG Reduction Plan:** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.
- **Tier 3. Numerical Screening Threshold:** If GHG emissions are less than the numerical screening-level threshold, project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD, under Option 1, is proposing a "bright-line" screening-level threshold of 3,000 MT CO₂e/yr for all land use types or, under Option 2, the following land-use-specific thresholds: 1,400 MT CO₂e for commercial projects, 3,500 MT CO₂e for residential projects, or 3,000 MT CO₂e for mixed-use projects. This bright-line threshold is based on a review of the OPR's database of CEQA projects. Based on

their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal and therefore less than cumulatively considerable impact on GHG emissions.

- **Tier 4. Performance Standards:** If emissions exceed the numerical screening threshold, a more detailed review of the project's GHG emissions is warranted. SCAQMD has proposed an efficiency target for projects that exceed the bright-line threshold. The current recommended approach is per capita efficiency targets. SCAQMD is not recommending use of a percentage emissions reduction target. Instead, SCAQMD proposes a 2020 efficiency target of 4.8 MT CO₂e per year per service population (MT CO₂e/yr/SP) for project-level analyses and 6.6 MT CO₂e/yr/SP for plan-level projects (e.g., program-level projects such as general plans). The GHG efficiency metric divides annualized GHG emissions by the service population, which is the sum of residents and employees, per the following equation:

$$\text{Rate of Emission: GHG Emissions (MT CO}_2\text{e/yr)} \div \text{Service Population}$$

The efficiency evaluation consists of comparing the project's efficiency metric to efficiency targets. Efficiency targets represent the maximum quantity of emissions each resident and employee in the State of California could emit in various years based on emissions levels necessary to achieve the statewide GHG emissions reduction goals. A project that results in a lower rate of emissions would be more efficient than a project with a higher rate of emissions, based on the same service population. The metric considers GHG reduction measures integrated into a project's design and operation (or through mitigation). The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for the CARB's 2008 Scoping Plan.

However, the SCAQMD's thresholds are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan. Because the proposed Project would begin operations in the post-2020 timeframe, the 2020 numerical screening threshold of 3,000 MT CO₂e/yr and the efficiency target of 4.8 MT CO₂e/yr/SP would need to be adjusted to reflect the State's post-2020 GHG reduction goals.

SCAQMD has yet to publish a quantified GHG efficiency threshold for the 2030 or 2050 target. A scaled threshold consistent with State goals detailed in SB 32, EO B-30-15, and EO S-3-05 to reduce GHG emissions by 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, respectively, was developed for 2045, when the build out would be complete.

Though the SCAQMD has not published a quantified threshold beyond 2020, this assessment uses a threshold of 975 MT CO₂e/yr or 1.6 CO₂e/yr/SP, which was calculated for the build out year of 2045 based on the GHG reduction goals of SB 32 and EO B-30-15. These thresholds are therefore based on the SCAQMD thresholds using a statewide 2020 target (achieve 1990 levels by 2020) regressed to fit the statewide 2050 target (80 percent below 1990 levels of emissions).

The scaled thresholds were calculated as follows:

- Based on the current target of 80 percent below 1990 levels by 2050 – 80 percent below the 3,000 MT CO₂e/yr or 4.8 MT CO₂e/yr/SP 2020 target would represent the 2050 threshold (600 MT CO₂e/yr or 1.0 MT CO₂e/yr/SP).
- The threshold between 2020 and 2050 is therefore scaled at 2.7 percent per year (80 percent across the 30-year period).
- With an anticipated Project build out date of 2045, the proposed Project's target would be less than 975 MT CO₂e/yr or 1.6 MT CO₂e/yr/SP (or 67.5 percent below the 2020 target at 2.7 percent per year between the 25-year period of 2020 and 2045).

For the purpose of this analysis, the proposed Project will first be compared to the adjusted screening-level Tier 3 Numerical Screening Threshold of 975 MT CO₂e/yr for all land use types. If it is determined that the proposed Project is estimated to exceed this screening threshold, it will then be compared to the efficiency-based threshold.

The proposed Project is also evaluated for compliance with the City's CAP, the 2017 Scoping Plan, and SCAG's 2020–2045 RTP/SCS, which establishes an overall GHG target for the Project region consistent with the post-2020 GHG reduction goals of SB 32.

4.4.6 Project Impacts

Threshold 4.4.1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Significant Unavoidable Impact. This section describes the potential construction- and operational-related GHG emissions associated with the proposed Project. SCAQMD has not addressed emission thresholds for construction in its *CEQA Air Quality Handbook*; however, SCAQMD requires quantification and disclosure. Thus, this section discusses construction emissions.

Construction. It is important to note that the proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. The zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites.

Construction activities associated with the construction of additional housing units that could occur during implementation of the proposed Project would occur through the horizon year 2045 would cause short-term GHG emissions. The primary source of emissions is the operation of construction equipment. Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Construction activities associated with the proposed Project would produce combustion emissions from various sources. Construction would emit GHGs through the operation of construction equipment and from worker and builder supply vendor vehicles for the duration of the construction period. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore,

the fueling of heavy equipment emits CH₄. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

As indicated above, SCAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. The SCAQMD then requires the construction GHG emissions to be amortized over the life of the project, defined as 30 years, added to the operational emissions, and compared to the applicable interim GHG significance threshold tier. Since the new housing development allowed under the proposed zoning overlays is assumed, for the purpose of this environmental analysis, to be built over a 22-year planning period, the life of the Project would likely be longer than 30 years; however, to be conservative, this analysis still assumes a 30-year life.

Information regarding specific development projects is not yet known; however, due to the scale of development activity associated with the proposed Project, this analysis assumes that 1,196 housing units would be constructed over the approximately 22-year planning period. Construction emissions were estimated for the Project using CalEEMod. This analysis assumes that construction of the proposed Project would begin in 2023 and end in 2045, which was included in CalEEMod. In addition, this analysis conservatively assumes demolition of the existing structures on the Potential Housing Sites, which would total approximately 485,195 square feet, which was also included in CalEEMod. Demolition, grading, and building activities would involve the use of standard earthmoving equipment such as large excavators, cranes, and other related equipment.

Using CalEEMod, it is estimated that the proposed Project would generate 20,979.5 MT CO₂e during construction. When annualized over the 30-year life of the Project, annual emissions would be 699.3 MT CO₂e.

Operation. As previously stated, the proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. The zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites.

Operational activities associated with the additional housing units would result in long-term GHG emissions associated with mobile, area, waste, water, and stationary sources as well as indirect emissions from sources associated with energy consumption. Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Mobile source GHG emissions include project-generated vehicle trips. As discussed above, the proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. As such, the proposed Project would generate 746 net new average daily trips.

Energy source emissions would be generated at off-site utility providers as a result of increased electricity demand generated by the proposed Project. The proposed Project would be designed to

comply with the water efficiency and energy conservation requirements included in the California Building Standards Code (California Code of Regulations [CCR], Title 24).

Area-source emissions would be associated with architectural coatings, consumer products, and landscaping equipment. Waste source emissions generated by the proposed Project would include energy generated by landfilling and other methods of disposal related to transporting and managing project-generated waste. In addition, water source emissions associated with the proposed Project would be generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

Following guidance from the SCAQMD, GHG emissions were estimated using CalEEMod. Table 4.4.D shows the calculated GHG emissions for the proposed Project. Energy source emissions are the largest source of GHG emissions for the Project at 61 percent of the total. Waste source emissions are the next largest category at approximately 13 percent and mobile sources are about 12 percent of the total emissions, respectively. In addition, water is approximately 7 percent of the total emissions. Area sources are 5 percent of the total emissions. Appendix B provides additional calculation details.

Table 4.4.D: GHG Emissions (Metric Tons Per Year)

Emission Type	Operational Emissions				
	CO ₂	CH ₄	N ₂ O	CO ₂ e	Percentage of Total
Area Source	278.9	<0.1	<0.1	280.9	5
Energy Source	3,18.16	<0.2	<0.1	3,203.8	61
Mobile Source	649.8	<0.1	<0.1	658.7	12
Waste Source	284.9	16.8	0.0	705.8	13
Water Source	301.7	2.6	0.1	384.6	7
Total Operational Emissions				5,233.8	100.0
Amortized Construction Emissions				699.3	-
Total Annual Emissions				5,933.1	-
SCAQMD Scaled 2045 Threshold				975.0	-
Exceeds Threshold?				Yes	-
Service Population Emissions				2.5	
SCAQMD Scaled 2045 Service Population Threshold				1.6	-
Exceeds Threshold?				Yes	-

Source: LSA (November 2022).

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

GHG = greenhouse gas

N₂O = nitrous oxide

SCAQMD = South Coast Air Quality Management District

As discussed above, according to SCAQMD, a project would have less than significant GHG emissions if it would result in operational-related GHG emissions of less than 975.0 MT CO₂e/yr. Based on the analysis results, the proposed Project would result in 5,933.1 MT CO₂e/yr, which would exceed the scaled SCAQMD threshold of 975 MT CO₂e/yr. Therefore, the following discussion compares the proposed Project to the efficiency-based threshold.

As described further in Section 4.7, Population and Housing, the zoning overlay and land use changes that are proposed as a part of the Project would accommodate the construction of 1,196

housing units. According to the 2017 American Housing Survey (AHS), the average household size in structures that have 50 or more housing units (the highest housing density type evaluated in the AHS) in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area (MSA) was 1.99 persons. Because the proposed zoning overlay would include a residential high-density overlay, a residential medium-density overlay, a residential medium-low density overlay, and a residential low-density overlay, 1.99 persons per household was deemed appropriate for use in the analysis contained in this PEIR. Therefore, the additional 1,196 housing units that would potentially be built in the City during the 6th Cycle from 2021–2029 would result in an increase in 2,382 residents. The proposed Project would result in per service population emissions of 2.5 MT CO₂e/yr/SP, which exceeds the SCAQMD’s scaled screening threshold of 1.6 MT CO₂e/yr/SP.

However, as identified above, before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits. While individual projects accommodated under the proposed Project may not exceed SCAQMD thresholds of significance and/or statewide GHG reduction targets, the likely scale and extent of build out associated with the proposed Project would likely continue to exceed the SCAQMD thresholds for some projects. As such, implementation of Mitigation Measure (MM) GHG-1 would, for discretionary projects, require a project-specific assessment of potential GHG impacts and implementation of feasible mitigation measures to reduce GHG emissions. While MM GHG-1 would serve to reduce GHG emissions associated with build out of the Project, GHG emission impacts would remain significant and unavoidable because compliance with future efficiency targets cannot be assured. As such, impacts would be significant and unavoidable.

The proposed Project also includes text changes in the Land Use Element. These text changes provide internal consistency between General Plan Elements and would not facilitate or entitle any physical development that would result in GHG impacts. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan update. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development that would result in impacts to GHG. The Project also includes text changes to the existing General Plan Circulation Element and renaming it to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on public services and utilities. As discussed in Chapter 3.0, Project Description, the City is substantially built out, and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network. Thus, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in impacts to GHGs.

Threshold 4.4.2: 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. Applicable plans adopted for the purpose of reducing GHG emissions include the Laguna Woods CAP, CARB’s Scoping Plan, and SCAG’s 2020–2045 RTP/SCS. A consistency analysis with these plans for the proposed Project is presented below.

Laguna Woods CAP. As discussed above, the City adopted a CAP³⁰, which is a comprehensive planning document outlining the City’s proposed approach to address climate impacts on Laguna Woods. The goal is to ensure the community and physical assets are better protected from the impacts of climate change. The vision of the CAP is to help the City thrive in likely future climate conditions, with a particular emphasis on climate change impacts on wildlife, individual well-being, public health, and water supply. The CAP includes a roadmap for implementing new goals, policies, objectives, and implementing actions that will help the City pursue to further climate adaptation efforts.

The proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. The zoning overlays that are proposed for adoption as a part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites. Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits. However, it is expected that future additional housing development would be consistent with the CAP goal of increasing energy and water efficiency as future projects would be required to comply with the latest California Building Code (Title 24), including the latest CALGreen Code Standards. As such, the proposed Project would be consistent with applicable CAP goals.

CARB Scoping Plan. The CARB Scoping Plan is applicable to State agencies, but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the State agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that would affect a local jurisdiction’s emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard and changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley California Advanced Clean Cars program). Although measures in the Scoping Plan apply to State agencies and not the proposed Project, the Project’s GHG emissions would be reduced by compliance with statewide measures that have been adopted since AB 32 and SB 32 were adopted. Therefore, the proposed Project was analyzed for consistency with the goals of the 2022 Scoping Plan, EO B-30-15, SB 32, and AB 197.

³⁰ City of Laguna Woods. 2014. Laguna Woods Climate Adaptation Plan. December. Website: <https://www.adaptationclearinghouse.org/resources/city-of-laguna-woods-climate-adaptation-plan.html#:~:text=Maintain%20low%20levels%20of%20heat,water%20conservation%2C%20efficiency%2C%20and%20independence> (accessed November 2022).

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. CARB released the 2017 Scoping Plan,³¹ to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

In addition, the 2022 Scoping Plan assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California will be zero-emission by 2035, and all other fleets will have transitioned to zero-emission as fully possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

As identified above, the 2022 Scoping Plan contains GHG reduction measures that work towards reducing GHG emissions, consistent with the targets set by EO B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed Project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy measures are intended to increase renewable energy generation sources. As identified above, future projects would be required to comply with the latest Title 24 and CALGreen Code standards, regarding water efficiency and energy conservation requirements. Therefore, the proposed Project would comply with applicable energy measures. In addition, electricity would be provided by Southern California Edison (SCE), which is required to increase its renewable energy sources to meet the Renewable Portfolio Standards mandate of 60 percent renewable supplies by 2030. In addition, SCE plans to continue to provide reliable service to its customers and upgrade its distribution systems as necessary to meet future demand. Therefore, the proposed Project would not conflict with applicable energy measures.

³¹ CARB. 2017a. *California's 2017 Climate Change Scoping Plan*. November.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, future projects would be required to comply with the latest Title 24 and CALGreen Code standards, which includes a variety of different measures, including reduction of wastewater and water use. In addition, the future projects would be required to comply with the City's Water Efficient Landscape Ordinance. Therefore, the proposed Project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to increase zero emission vehicles and decrease VMT. As discussed in Chapter 3.0, Project Description, the adoption of residential zoning overlays as part of the proposed Project is intended to accommodate a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably priced housing for all income groups and providing adequate potential housing sites with corresponding density to meet the City's RHNA allocation. The proposed Project would decrease reliance on the automobile and encourage active lifestyles through policies and in-fill development that increase the safety, convenience, and integration of multiple transportation modes, thereby promoting alternative forms of transportation (e.g., walking and cycling) and reducing VMT. As such, the proposed Project would not conflict with the identified transportation and motor vehicle measures.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy. SCAG's 2020–2045 RTP/SCS was adopted September 3, 2020. SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The core vision in the 2020–2045 RTP/SCS is to better manage the existing transportation system through design management strategies, integrate land use decisions and technological advancements, create complete streets that are safe to all roadway users, preserve the transportation system, and expand transit and foster development in transit oriented communities. The 2020–2045 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as a forecast development that is generally consistent with regional-level general plan data. The forecasted development pattern, when integrated with the financially constrained transportation investments identified in the 2020–2045 RTP/SCS, would reach the regional target of reducing GHG emissions from autos and light-duty trucks by 19 percent by 2035 (compared to 2005 levels). The 2020–2045 RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the 2020–2045 RTP/SCS, but provides incentives for consistency for governments and developers.

According to SCAG's 2020–2045 RTP/SCS, the City's population, households, and employment are forecast to increase by approximately 200 residents, 100 households, and 1,400 jobs, respectively, between 2016 and 2045.³²

³² Southern California Association of Governments (SCAG). 2020. *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*. Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176 (accessed November 2022).

The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. Of the Potential Housing Sites, 9 sites (Sites 1–8 and Site 15) would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per acre (du/ac). Five sites (Sites 9–12 and Site 17) would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites (Sites 13 and 16) would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and Site 14 would be within the Residential Medium Density Overlay, which would allow between 20–30 du/ac.

The proposed Project would also amend the zoning on 12 additional properties. The zoning districts on 10 properties (Site 18 and Sites 21–29) would be changed from Community Commercial, Open Space – Recreation, Open Space – Passive, and Residential Community to Community Facilities – Public/Institutional. The zoning districts on the other two properties would be changed from Residential Community to Open Space – Passive (Site 19) and from Residential Multifamily to Open Space – Recreation (Site 20). These minor administrative changes are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. The amended zoning on these 12 additional properties is being proposed to reflect existing uses.

As described further in Section 4.7, Population and Housing, the zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units. According to the 2017 AHS, the average household size in structures that have 50 or more housing units (the highest housing density type evaluated in the AHS) in the Los Angeles-Long Beach-Anaheim MSA was 1.99 persons. Because most of the proposed zoning overlays would allow for higher density housing, 1.99 persons per household was deemed appropriate for use in the analysis contained in this PEIR. Therefore, the additional 1,196 housing units that would potentially be built in the City would result in an increase in 2,382 residents. The Regional Housing Needs Assessment (RHNA) for the City of Laguna Woods accounts for 997 additional housing units, which would provide housing for approximately 1,984 additional residents.

Future development allowed under the rezoning program would accommodate planned regional housing growth included in the SCAG RHNA. Any future projects implemented in accordance with the proposed zoning overlays and updated land use designations would be required to adhere to the City's General Plan. Therefore, since the purpose of the proposed Project is to accommodate planned regional housing growth included in the SCAG RHNA, the proposed Project would not exceed the growth assumptions in the SCAG's RTP/SCS.

Implementing SCAG's RTP/SCS will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emissions reduction targets. Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits. As such, future additional housing developed associated with the proposed Project would be evaluated for potential to interfere with SCAG's ability to achieve the region's GHG reduction target of 19 percent below 2005 per capita emissions levels by 2035, and whether regional mobile emissions would decrease in line with the goals of the RTP/SCS.

Based on the nature of the proposed Project, it is anticipated that implementation of the proposed Project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS. In addition, text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would conflict with GHG reduction plans. Therefore, the proposed Project would not conflict with an adopted plan, policy, or regulation pertaining to GHG emissions, and impacts are considered less than significant. No mitigation is required.

4.4.7 Level of Significance Prior to Mitigation

The proposed Project would result in a potentially significant impact related to GHG emissions.

4.4.8 Regulatory Compliance Measures and Mitigation Measures

MM GHG-1 Prior to discretionary approval by the City of Laguna Woods (City) for residential development projects subject to California Environmental Quality Act (CEQA) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project-related greenhouse gas (GHG) impacts to the City for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (SCAQMD) methodology. If project-related GHG emissions exceed applicable SCAQMD thresholds of significance and/or statewide GHG reduction targets, the City shall require that applicants for new development projects incorporate mitigation measures to reduce GHG emissions. Mitigation measures could include, but are not limited, to energy efficiency measures, water conservation and efficiency measures, solid waste measures, and transportation and motor vehicles measures. The identified measures shall be included as part of the conditions of approval.

4.4.9 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for GHG emissions. However, unlike the cumulative analysis for many topics that address the combined impacts of a proposed project in addition to related projects in a project study area, the analysis of impacts related to GHG emissions is inherently cumulative.

AB 32 required CARB to reduce statewide GHG emissions to 1990 level by 2020. As part of this legislation, CARB was required to prepare a "Scoping Plan" that demonstrates how the State will achieve this goal. The Scoping Plan was first adopted in 2011 and in it, local governments were described as "essential partners" in meeting the statewide goal, recommending a GHG reduction level of 15 percent below 2005 to 2008 levels by 2020. In addition, CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 GHG emissions reductions target of at least 40 percent below 1990 levels by 2030. CARB recently adopted the 2022 Scoping Plan,³³

³³ CARB. 2022. *2022 Scoping Plan Update*. May 10. Website: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents> (accessed March 2023).

which assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

In order to achieve these goals, CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. However, there are currently no applicable significance thresholds, specific reduction targets, and/or approved policy or guidance to assist in determining significance at the cumulative level. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represent new emissions or existing, displaced emissions.

As previously stated, GHG emissions associated with the build out under the proposed Project would exceed the scaled SCAQMD thresholds of 975 MT CO₂e/yr or 1.6 MT CO₂e/yr/SP in the horizon year of 2045. Since GHG is a global issue, it is unlikely that the proposed Project would generate enough GHG emissions to influence GHG emissions on its own; however, because Project-related CO₂e emissions would exceed the scaled SCAQMD thresholds, the proposed Project would have a significant contribution to cumulatively considerable GHG emission impacts.

4.4.10 Level of Significance After Mitigation

GHG emissions associated with the build out under the proposed Project would exceed the scaled SCAQMD threshold of 975 MT CO₂e/yr or 1.6 MT CO₂e/yr/SP in the horizon year of 2045. While MM GHG-1 would serve to reduce GHG emissions associated with build out of the Project, GHG emission impacts would remain significant and unavoidable because compliance with future efficiency targets cannot be assured. Pursuant to State law, future developments proposed for the Potential Housing Sites may be eligible for approval through a ministerial approval process and therefore would not be subject to MM GHG-1 as it pertains to discretionary review by the City.

4.5 LAND USE AND PLANNING

4.5.1 Introduction

This section evaluates the potential land use and planning impacts associated with the Laguna Woods General Plan and Zoning Code Update (proposed Project). This section was prepared in compliance with *State of California Environmental Quality Act Guidelines (State CEQA Guidelines)* Section 15125(d). Information presented in this section is based on information provided in the City of Laguna Woods (City) General Plan, the City's General Plan Land Use Map, the City's Zoning Code, and the City's Zoning Map.

4.5.1.1 Scoping Process

The City received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). Two comment letters included comments related to Land Use and Planning.

The letter from the Southern California Association of Governments (SCAG) (August 15, 2022) requested evaluation of the proposed Project's consistency with the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS or Connect SoCal).

4.5.2 Methodology

The impact analysis presented in this Land Use and Planning section evaluates potential physical impacts of the proposed Project on land use compatibility and considers whether the proposed Project would result in potential inconsistencies with relevant plans or policies contained in applicable planning documents adopted by the City and other agencies. Neither CEQA nor the *State CEQA Guidelines* set forth standards for determining whether or not a project is consistent with an applicable plan; rather, the final determination that a project is consistent or inconsistent with an applicable plan is made by the Lead Agency when it acts on the project. The analysis in this PEIR discusses the findings of policy review and is meant to provide a guide for decision-makers during policy interpretation.

A project's inconsistency with a plan or policy is only considered significant if such inconsistency would result in a significant physical environmental impact (per *State CEQA Guidelines* Section 15382). This PEIR section determines whether or not the proposed Project would conflict with any adopted land use policies or programs and whether mitigation is feasible. Under this approach, a policy or program conflict is not in and of itself considered a significant environmental impact. An inconsistency between the proposed Project and an applicable plan is a determination that may or may not indicate the likelihood of an environmental impact. In some cases, an inconsistency may be evidence that an underlying physical impact is significant and adverse.

4.5.3 Existing Environmental Setting

The City is located in the south-central portion of Orange County in Southern California. Laguna Woods is characterized by urban areas and a mix of land uses, including single-family and multifamily residential uses and small concentrations of commercial, office, open space, and community facilities. The City is bounded on the southwest and west by Laguna Coast Wilderness

Park and State Route 133 (SR-133), and on the northeast by Interstate 5 (I-5). State Route 73 (SR-73) is near the southern boundary of the City. Laguna Woods shares its borders with the following cities: Laguna Hills on the north and southeast, Aliso Viejo on the south, Laguna Beach on the west, and Irvine on the northwest. In addition, an unincorporated area of Orange County is located along a portion of the City's western border.

As shown in Figure 4.5-1, General Plan Land Uses, the City is planned to be developed with residential, commercial, community facilities, and open space uses (City of Laguna Woods 2017). Additionally, the Land Use Element of the City's General Plan identifies the following land uses throughout the City: High Density Residential (HDR), Residential Community (RC), Commercial (C), Community Facilities (CF), Open Space (OS).

The Potential Housing Sites identified in Chapter 3.0 in Figure 3-2, Potential Housing Sites and Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, are generally developed with commercial, community facilities, and office uses. The Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are currently used as community facilities or open space. The land use changes proposed at the 12 administrative adjustment locations involve current land uses devoted to community facilities or open space. The proposed zoning and land use designation changes at the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to align the land use designations with the actual existing uses. Table 3.A, also found in Chapter 3.0, Project Description, of this PEIR, provides a description of each of the Potential Housing Sites and the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, their existing use and assessor's parcel number, address, existing and proposed General Plan land use designations, and existing and proposed zoning designation or overlay.

4.5.4 Regulatory Setting

4.5.4.1 Federal Regulations

There are no federal regulations applicable to the proposed Project for land use and planning.

4.5.4.2 State Regulations

California State Planning and Zoning Law. This law, which is codified in California Government Code Sections 65000–66037, delegates most of the State's local land use and development decisions to cities and counties. The California Government Code establishes specific requirements pertaining to the regulation of land uses by local governments, including general plan requirements, specific plans, subdivisions, and zoning. California Government Code Section 65302 requires that all California cities and counties include the following seven elements in their general plans:

- Land Use
- Circulation
- Housing
- Conservation
- Open Space
- Noise
- Safety

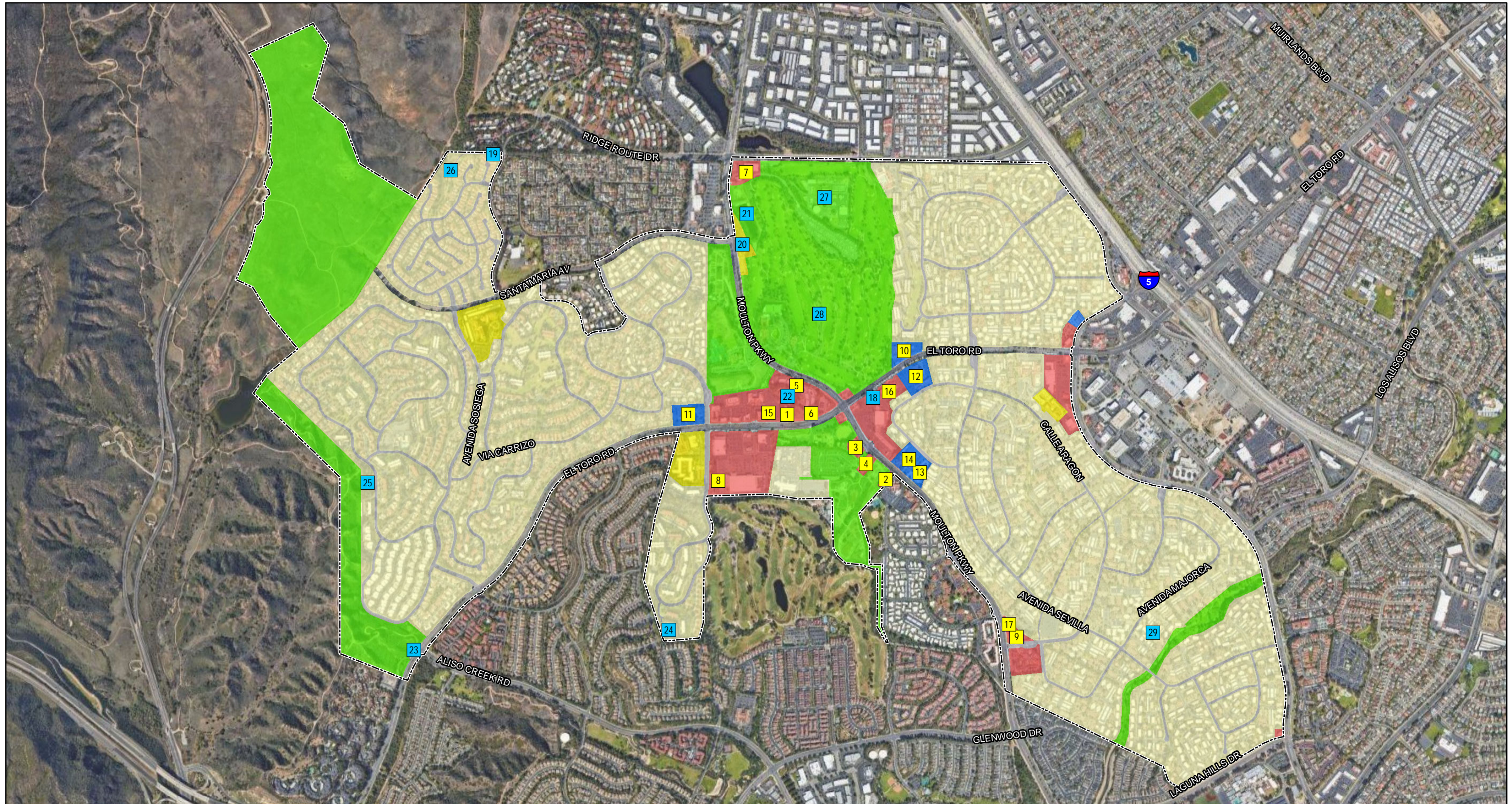


FIGURE 4.5-1

LSA

LEGEND

City of Laguna Woods

Sites Proposed for Land Use Designation
Changes and Rezoning to Reflect Existing Uses

Potential Housing Sites

General Plan Land Uses

Residential Community

High Density Residential

Commercial

Community Facilities

Open Space

Private Right of Way



SOURCE: Google Maps (2021); City of Laguna Woods (2022)

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Cities and counties that have identified disadvantaged communities must also address environmental justice in their general plans, including air quality.¹

Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375). This statute requires California’s regional planning agencies to include a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy in their Regional Transportation Plans (RTP). Senate Bill (SB) 375 was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The SCS provides a plan for meeting the regional emissions reduction targets established by the California Air Resources Board (CARB). If the emissions reduction targets cannot be met through the SCS, an Alternative Planning Strategy (APS) may be developed that shows how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. SB 375 also offers local governments regulatory and other incentives to encourage more compact new development and transportation alternatives.

The requirements of SB 375 are reflected in the 2020 RTP/SCS adopted by the Southern California Association of Governments (SCAG), which serves as the regional planning agency in the six-county metropolitan region composed of Orange, Los Angeles, Ventura, Riverside, San Bernardino, and Imperial Counties. The 2020–2045 RTP/SCS is discussed in further detail below.

4.5.4.3 Regional Regulations

The City is covered by several regional planning documents and programs that have varying degrees of regulation over land use in the City. The following paragraphs explain regional regulations, plans, and policies applicable to the Potential Housing Sites and Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses that are analyzed in this PEIR section.

Southern California Association of Governments (SCAG). As discussed above, regional planning in Orange, Los Angeles, Ventura, Riverside, San Bernardino, and Imperial Counties is conducted by SCAG. SCAG is also the federally designated Metropolitan Planning Organization (MPO) for these six counties. As the designated MPO, SCAG is mandated by the federal government to research and prepare plans for transportation, a growth forecast, hazardous waste, and air quality. The growth forecast serves as the foundation of these plans. Of the various plans adopted by SCAG, the Regional Comprehensive Plan and the 2020–2045 RTP/SCS are relevant to the proposed Project.

Regional Transportation Plan/Sustainable Communities Strategy. On September 3, 2020, SCAG adopted the 2020–2045 Connect SoCal RTP/SCS. The 2020–2045 Connect SoCal RTP/SCS is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The overall vision for the 2020–2045 RTP/SCS is to chart a path

¹ Senate Bill (SB) 1000, adopted in 2016 requires both cities and counties that have disadvantaged communities to incorporate environmental justice (EJ) policies into their general plans, either in a separate EJ element or by integrating related goals, policies, and objectives throughout the other elements. This update, or revision if the local government already has EJ goals, policies, and objectives, must happen “upon the adoption or next revision of two or more elements concurrently on or after January 1, 2018.”

toward a more mobile, sustainable and prosperous region by making connections between transportation networks, planning strategies, and the people whose collaboration can improve the quality of life for Southern Californians.

The goals of Connect SoCal fall into four core categories: economy, mobility, environment, and healthy/complete communities. The plan explicitly lays out goals related to housing, transportation technologies, equity, and resilience in order to adequately reflect the increasing importance of these topics in the region, and where possible the goals have been developed to link to potential performance measures and targets. The plan's guiding policies take these goals and focus them, creating a specific direction for plan investments.

The following goals in the 2020–2045 RTP/SCS are applicable to the proposed Project:²

Goal 6: Support healthy and equitable communities.

Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.

4.5.4.4 Local Regulations

Under the City's General Plan and Zoning Code, the City has preeminent decision-making authority regarding allowable land uses on the Potential Housing Sites and Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses.

City of Laguna Woods General Plan. The City of Laguna Woods General Plan contains goals, policies, and plans that are intended to guide land use and development decisions. The General Plan consists of the following seven elements, or chapters, which together fulfill the State requirements for a General Plan:

- Land Use Element
- Housing Element
- Circulation Element
- Conservation Element
- Noise Element
- Safety Element
- Open Space Element

At the heart of the General Plan is the Land Use Element (2017). This element presents the City's goals and policies directing the long-term growth, development, and revitalization of the City. The Land Use Element serves as a guide to the allocation of land use in the City and has major impacts on key issues and subject areas examined in the other elements of the General Plan. The Land Use Map, which illustrates land uses within the City, is a primary feature of the Land Use Element. Land use designations indicate the type and nature of development that is allowed in a given location.

² Goal 9 of the 2016–2040 RTP/SCS relates to planning/policy actions to be taken by regional and local agencies; therefore, it does not apply to the Project.

The following policies included in the City's General Plan are relevant to the proposed Project:

- **Housing Element**

- **Goal H-1:** Enable the development of housing necessary to accommodate current and projected housing needs, including for lower-income households and other special needs populations.
 - **Policy Objective H-1.1:** Make sites available to accommodate current and projected housing needs for groups at all income levels, in accordance with California Government Code Section 655831(1).
 - **Program H-1.1.1:** Rezone the 17 potential housing sites identified in the Housing Sites Inventory and Analysis to accommodate the City's housing needs allocation.
 - **Policy Objective H-1.2:** Assist in the development of adequate housing to meet the needs of extremely low, very low, low-, and moderate-income households.

- **Land Use Element**

- **Objective I:** Promote land uses that accommodate the diverse needs of City of Laguna Woods residents.
 - **Policy I.A:** Facilitate development of a variety of housing types that appeal to a broad spectrum of prospective new residents.
 - **Implementation Measure I.A.1:** Accommodate rezoning of properties consistent with Residential designations shown on the General Plan Land Use Map and with Housing Element goals for new dwelling unit construction.
 - **Implementation Measure I.A.2:** Approve rezoning of Open Space land to non-residential use consistent with the General Plan Land Use Map only after sufficient land is zoned for Residential use consistent with Housing Element goals for new dwelling unit construction.

- **Noise Element**

- **Objective II:** Recognize the potential effects of noise early in the land use planning process to minimize or avoid detrimental impacts.
 - **Policy II.B:** Incorporate noise considerations into land use planning decisions.

- **Circulation Element Amendment**

- **Objective I:** Improve and expand transportation options within the City and to destinations outside the City.
- **Objective III:** Maintain and improve existing circulation infrastructure.

The Project includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. "Mobility" is purposefully used in this element's title to emphasize the City's commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of

streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on land use and planning. As mentioned earlier, the City is substantially built out and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network.

City of Laguna Woods Zoning Code. Zoning is the division of a city into districts and the application of land use and development regulations specific to each district. The City of Laguna Woods Zoning Code, Title 13 of the Municipal Code, includes development standards applicable to the entire City. It establishes zone-specific height limits, setback requirements, parking ratios, and other development standards, and specifies permitted and prohibited uses.

It is the intent of the City that the General Plan Land Use Element and the Zoning Code be consistent in order to ensure that long-term goals and objectives are implemented through land use regulations and other tools. The Zoning Code is a primary tool for implementing the City’s General Plan. There are various zoning districts within the City that operate with their respective development standards and use regulations. The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. Of the Potential Housing Sites, nine sites (Sites 1–8 and Site 15) would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per acre (du/ac). Five sites (Sites 9–12 and Site 17) would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites (Sites 13 and 16) would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and Site 14 would be within the Residential Medium Density Overlay, which would allow between 20–30 du/ac.

The proposed Project would also amend the zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, which are owned by the City, the Golden Rain Foundation, and the El Toro Water District. The zoning districts on 10 properties (Site 18 and Sites 21–29) would be changed from Community Commercial, Open Space – Recreation, Open Space – Passive, and Residential Community to Community Facilities – Public/Institutional. The zoning districts on the other two properties would be changed from Residential Community to Open Space – Passive (Site 19) and Residential Multifamily to Open Space – Recreation (Site 20). As noted previously, the proposed rezoning and land use changes on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are considered to be administrative changes to the General Plan and zoning designations reflecting the actual existing use of the sites and providing consistency between the General Plan and zoning designations.

All zoning changes and overlays would adhere to Section 13.24.120 of the City of Laguna Woods Municipal Code.

4.5.5 Thresholds of Significance

The proposed Project may be deemed to have a significant impact with respect to land use and planning if it would:

Threshold 4.5.1: Physically divide an established community.

Threshold 4.5.2: 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.

4.5.6 Project Impacts

Threshold 4.5.1: Would the project physically divide an established community?

No Impact. Any future projects implemented in accordance with the proposed zoning overlays would be required to adhere to the General Plan, provide required development impact fees, and comply with applicable development regulations. Furthermore, any redevelopment on the Potential Housing Sites would replace existing structures within the built environment and proposed development plans would be reviewed for connectivity. Only one of the Potential Housing Sites consists of vacant land; however, even this one parcel is in an urbanized location and surrounded by the built environment. The proposed rezoning and land use changes on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are considered to be administrative changes intended to reflect the existing use and provide consistency between the General Plan and Zoning Code. The amended land use designations and zoning districts would not result in development at the affected properties that would physically divide existing communities.

The City is bordered on the north, east, and southeast by the City of Laguna Hills, on the northwest by the City of Irvine, on the west by unincorporated Orange County and the City of Laguna Beach, and on the south by the City of Aliso Viejo. Residential uses exist in the easterly, westerly, and southeasterly portions of the City. With the residential zoning overlays and the proposed land use amendments that are proposed as a part of the Project, the proposed Project would not divide an established community. Future site plans for each of the Potential Housing Sites would be subject to City land use regulation review which includes consideration of land use connectivity. Furthermore, the proposed Mobility Element renames the existing General Plan Circulation Element. The Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could divide an established community. As mentioned earlier, the City is substantially built out, and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network which actually enhances connectivity. The changes to the Noise and Land Use Elements are necessary to update noise contour maps and provide internal consistency between General Plan elements. No mitigation is necessary.

Threshold 4.5.2: Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, planned community, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The main documents regulating land use for the Project site and the immediate vicinity are the City's General Plan and its Zoning Code. The proposed Project's relationship to these planning documents is described below. In light of SCAG's request to evaluate the Project's consistency with the 2020–2045 RTP/SCS, the proposed Project's relationship to that document is also provided below.

SCAG Regional Transportation Plan/Sustainable Community Strategies. Table 4.5.A, below, provides a consistency analysis of the goals from the 2020–2045 RTP/SCS Connect SoCal Plan that are relevant to the proposed Project. In order to eliminate repetitive policies and focus on key issues, goals that are not relevant to the proposed Project are not included in Table 4.5.A. As stated in Table 4.5.A, the proposed Project would be consistent with applicable goals in the 2020–2045 RTP/SCS Connect SoCal Plan, and no mitigation is required. The Project reinforces goals contained in the RTP/SCS by providing additional housing opportunities at in-fill urban locations proximate to residents' daily service needs.

City of Laguna Woods General Plan. The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites, which are generally developed with commercial, office or community facilities land uses. The proposed Project also includes land use designation changes at the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, which would be changed from Commercial, Open Space, or Residential Community to Community Facilities, and land use designation changes on the other two properties from Residential Community and High Density Residential to Open Space. As noted previously, the proposed rezoning and land use changes at the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses is to reflect existing land uses and provide General Plan Land Use and Zoning Code consistency. Table 4.5.B, below, provides a consistency analysis of the policies from the City's General Plan that are relevant to the proposed Project. In order to eliminate repetitive policies and focus on key issues, policies that are not relevant to the proposed Project are not included in Table 4.5.B. As stated in Table 4.5.B, the proposed Project would be consistent with all of the applicable General Plan policies. Therefore, the proposed Project would result in less than significant impacts related to potential conflicts with applicable land use plans, policies, and regulations, and no mitigation is required.

The proposed Project also includes text changes in the Circulation Element, Land Use Element, and Noise Element, and renames the Circulation Element to the Mobility Element. The text changes to the Noise Element include an update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development that would result in impacts to scenic vistas. Text changes to the land use element are necessary to

Table 4.5.A: Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Policy Consistency Analysis

Goals	Consistency Analysis
<p>RTP/SCS Goal 6: Support healthy and equitable communities.</p>	<p>Consistent. The proposed Project would support equitable communities by accommodating a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably-priced housing for all income groups. Additionally, the proposed Project would permit well-designed in-fill development that protects and enhances the quality of life and character of established neighborhoods and promotes healthy and safe living environments. The General Plan Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.</p>
<p>RTP/SCS Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.</p>	<p>Consistent. The proposed Project would amend the City’s General Plan and Zoning Code to provide adequate potential housing sites with corresponding density to meet the City’s RHNA allocation of 997 housing units, inclusive of prior planning cycle carryover housing units. Furthermore, the Project includes the adoption of a Mobility Element designed to maintain a balanced, multi-modal transportation network. The proposed Project would accommodate the appropriate distribution of new multi-family housing throughout the City. The proposed Project would also decrease reliance on the automobile and encourage active lifestyles through policies and in-fill development that increase the safety, convenience, and integration of multiple transportation modes.</p>

Source: Southern California Association of Governments. 2020–2045 Connect SoCal Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

City = City of Laguna Woods

EIR = Environmental Impact Report

RHNA = Regional Housing Needs Assessment

Table 4.5.B: General Plan Policy Consistency Analysis

Policies	Consistency Analysis
Housing Element	
<p>Goal H-1: Enable the development of housing necessary to accommodate current and projected housing needs, including for lower-income households and other special needs populations.</p>	<p>Consistent. The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. Of the Potential Housing Sites, nine sites would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per acre (du/ac). Five sites would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and one site would be within the Residential Medium Density Overlay, which would allow between 20-30 du/ac. An objective of the proposed Project is to accommodate a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably-priced housing for all income groups. The Project would increase the number of development opportunities for housing choices for residents that are lower-income and other special needs populations.</p>
<p>Policy Objective H-1.1: Make sites available to accommodate current and projected housing needs for groups at all income levels, in accordance with California Government Code Section 65583(c)(1).</p>	<p>Consistent. The proposed Project would adopt zoning overlays on the potential housing sites with corresponding density to meet the City’s RHNA allocation of 997 housing units, inclusive of prior planning cycle carryover housing units. The proposed Project would accommodate the appropriate distribution of new multi-family housing throughout the City. As described above in the analysis for Housing Element Goal H-1, an objective of the proposed Project is to accommodate a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably-priced housing for all income groups. The proposed Project would increase the number of development opportunities for housing choices for residents that are lower-income and other special needs populations.</p>
<p>Program H-1.1.1: Rezone the 17 potential housing sites identified in the Housing Sites Inventory and Analysis to accommodate the City’s housing needs allocation.</p>	<p>Consistent. As described above in the analysis for Housing Element Policy Objective H-1.1, the proposed Project includes the adoption of zoning overlays to provide adequate potential housing sites with corresponding density to meet the City’s RHNA allocation of 997 housing units. Specifically, these amendments would include the adoption of overlay zoning districts on the Potential Housing Sites that would allow for residential development on these sites.</p>
<p>Policy Objective H-1.2: Assist in the development of adequate housing to meet the needs of extremely low, very low, low-, and moderate-income households.</p>	<p>Consistent. As described above in the analysis for Housing Element Goal H-1, an objective of the proposed Project is to accommodate a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably-priced housing for all income groups. The Project would increase the number of development opportunities for housing choices for residents that are lower-income and other special needs populations.</p>
Land Use Element	
<p>Objective I: Promote land uses that accommodate the diverse needs of City of Laguna Woods residents.</p>	<p>Consistent. The proposed land use and zoning changes on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to reflect the reality that those properties are currently being used as open space or community facilities. These land use designation changes would ensure that the sites would continue to be used for those purposes for the foreseeable future, thereby meeting the City’s needs for open space and community facilities to serve its residents. Additionally, the adoption of overlay zoning districts on the Potential Housing Sites would allow for residential development on those sites, which would accommodate the diverse housing needs of City residents.</p>
<p>Policy I.A: Facilitate development of a variety of housing types that appeal to a broad spectrum of prospective new residents.</p>	<p>Consistent. As described above in the analysis for Housing Element Goal H-1, the proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. Of the Potential Housing Sites, nine sites would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per</p>

Table 4.5.B: General Plan Policy Consistency Analysis

Policies	Consistency Analysis
	acre (du/ac). Five sites would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and one site would be within the Residential Medium Density Overlay, which would allow between 20–30 du/ac. The proposed zoning overlays would provide 17 different sites that are able to accommodate the development of housing with corresponding densities to meet the City’s RHNA allocation of 997 housing units, which would provide development opportunities for housing choices for a broad spectrum of prospective residents.
Implementation Measure I.A.1: Accommodate rezoning of properties consistent with Residential designations shown on the General Plan Land Use Map and with Housing Element goals for new dwelling unit construction.	Consistent. As described above in the analysis for Housing Element Goal H-1, the proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. The overlay zoning districts would accommodate the new housing units so that the City can meet its RHNA requirements. This in turn would assist the City in meeting its goals for new dwelling unit construction, as outlined in the Housing Element.
Implementation Measure I.A.2: Approve rezoning of Open Space land to non-residential use consistent with the General Plan Land Use Map only after sufficient land is zoned for Residential use consistent with Housing Element goals for new dwelling unit construction.	Consistent. The proposed Project would consist of both the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites and minor administrative changes to reflect existing land uses and appropriate zoning are proposed at the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. The overlay zoning districts would accommodate the City’s need for sufficient land that is zoned for residential use so that it can meet its RHNA allocation of 997 units. The land use designation changes on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses include updating the land use designations on four sites from Open Space to Community Facilities to reflect the current uses on those sites. Each of the land use designation updates on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are land use changes to reflect existing uses and would not alter the existing setting.
Noise Element	
Objective II: Recognize the potential effects of noise early in the land use planning process to minimize or avoid detrimental impacts.	Consistent. The proposed Project includes amendments to the General Plan Noise Element. Specifically, the proposed Project would update the noise contour maps in the Noise Element to reflect current noise conditions in the City as well as those anticipated under General Plan build out. An objective of the proposed Project is to minimize exposure of sensitive noise receptors to the detrimental effects of excessive noise from new development by incorporating noise considerations into land use planning decisions. See Section 4.6, Noise, for further discussion of noise impacts associated with the proposed Project.
Policy II.B: Incorporate noise considerations into land use planning decisions.	Consistent. As described above in the analysis for Noise Element Objective II, the proposed Project would minimize exposure of sensitive noise receptors to the detrimental effects of excessive noise from new development by incorporating noise considerations into land use planning decisions.
Circulation Element	
Objective I: Improve and expand transportation options within the City and to destinations outside the City.	Consistent. As a part of the proposed Project, the City would rename the Circulation Element to the Mobility Element, which is intended to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. The Mobility Element would focus on maintaining and coordinating the City’s balanced multi-modal transportation network, which would meet the objective to improve and expand transportation options within the City.

Table 4.5.B: General Plan Policy Consistency Analysis

Policies	Consistency Analysis
Objective III: Maintain and improve existing circulation infrastructure.	Consistent. The proposed Project would rename the Circulation Element to the Mobility Element which is intended to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel.

Sources: City of Laguna Woods. 2015. Conservation Element. Website: <https://www.cityoflagunawoods.org/wp-content/uploads/2015/07/2015-07-29-Adopted-CLW-Conservation-Element.pdf> (accessed October 18, 2022).

City of Laguna Woods. 2022. Housing Element. Website: <https://www.cityoflagunawoods.org/wp-content/uploads/2022/08/2022-08-12-General-Plan-Housing-Element.pdf> (accessed October 18, 2022).

City of Laguna Woods. 2017. Land Use Element. Website: <https://www.cityoflagunawoods.org/wp-content/uploads/2017/09/08-2017-General-Plan-Land-Use-Element-Final.pdf> (accessed October 18, 2022).

City of Laguna Woods. 2015. Noise Element. Website: <https://cityoflagunawoods.org/wp-content/uploads/2015/06/Noise-Element.pdf> (accessed October 18, 2022).

City of Laguna Woods. 2015. Circulation Element. Website: <https://cityoflagunawoods.org/wp-content/uploads/2015/06/Circulation-Element.pdf> (accessed October 18, 2022).

City of Laguna Woods. 2015. Open Space Element. Website: <https://cityoflagunawoods.org/wp-content/uploads/2015/06/Open-Space-Element.pdf> (accessed October 18, 2022).

City = City of Laguna Woods

RHNA = Regional Housing Needs Assessment

provide internal consistency between General Plan elements. The renaming of the Circulation Element to the Mobility Element is being provided to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on land use and planning. As mentioned earlier, the City is substantially built out and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network and supporting regional transportation planning.

City of Laguna Woods Zoning Code. As described above, the proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. These new zoning overlays would be codified in the City of Laguna Woods Municipal Code. Therefore, upon their approval by the City Council, the proposed zoning overlays would be consistent with the City’s Municipal Code and Zoning Code. Future projects implemented in accordance with the proposed zoning overlays would be reviewed against provisions of the Zoning Code as a part of the future development review process.

Overall, the proposed Project would result in less than significant impacts related to potential conflicts with applicable land use plans, policies, and regulations, and no mitigation is required.

4.5.7 Level of Significance Prior to Mitigation

The proposed Project would result in less than significant impacts related to land use and planning.

4.5.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are applicable to the proposed Project pertaining to land use and planning.

4.5.9 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for land use and planning. The geographic scope of the cumulative land use and planning analysis is the City because the proposed Project would affect land use and planning throughout the City. The City has not seen any new housing development since completion of the San Sebastian development project in 2008. Therefore, the cumulative impacts associated with the proposed Project would be comprised of impacts from implementation of the proposed Project and any other proposed or approved projects which would contribute to physical impacts related to land use and planning.

The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. The proposed Project would also amend the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. These land use designation changes and rezoning actions would not have cumulative impacts because the proposed land use and zoning changes are administrative actions to properly reflect existing uses. Any future projects implemented in accordance with the proposed zoning overlays, zoning changes, and updated land use designations would be required to adhere to the General Plan, provide required development impact fees, and comply with applicable development regulations. The proposed Project supports the goals, policies, and objectives of the SCAG 2020–2045 Connect SoCal RTP/SCS, the City of Laguna Woods General Plan, and the City of Laguna Woods Municipal Code. Therefore, the impacts from the proposed Project are not considered to be cumulatively considerable. No mitigation is required.

4.5.10 Level of Significance After Mitigation

No mitigation is required. The proposed Project would not result in potentially significant impacts related to land use and planning.

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4.6 NOISE

4.6.1 Introduction

This section evaluates the potential long-term noise impacts associated with the proposed Laguna Woods General Plan and Zoning Update (proposed Project). This section is based on noise modeling completed by LSA. This section is also based, in part, on information provided in the City of Laguna Woods (City) General Plan and applicable provisions of the City's Municipal Code.

4.6.1.1 Scoping Process

The City received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). No comment letters included a comment related to noise.

4.6.2 Methodology

Potential sources causing a permanent increase in ambient noise include noise resulting from increased traffic on roadways within the City. It is projected that traffic volumes on some streets within the City would increase and some would decrease due to the new residential development allowed under the proposed zoning overlays replacing existing land uses that result in higher traffic volumes. The significance criteria define a significant impact to occur if the Project would result in a substantial (3 A-weighted decibels [dBA] or greater) permanent increase in ambient noise levels in the Project vicinity above levels without the proposed Project. For traffic noise to increase by 3 dBA, traffic volumes would have to double. It should be noted that the updates to the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are being proposed to ensure that the land use designations and zoning accurately reflect the existing uses on those properties and would not generate additional traffic.

The noise model SoundPlan was used to evaluate traffic-related noise conditions throughout the City. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL contours. Traffic volumes for Year 2045 without project and with project conditions were used to assess potential traffic noise level impacts in the City.

4.6.2.1 Characteristics of Sound

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave resulting in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave

strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

4.6.2.2 Measurement of Sound

Sound intensity is measured through the dBA scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units, such as inches or pounds, decibels (dB) are measured on a logarithmic scale representing points on a sharply rising curve. For example, 10 dB is 10 times more intense than 1 dB, 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Thirty dB represents 1,000 times as much acoustic energy as 1 dB. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source, such as highway traffic or railroad operations, the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source, noise in a relatively flat environment with absorptive vegetation, decreases 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. However, the predominant rating scales for human communities in the State of California are the equivalent continuous sound level (L_{eq}) and the Community Noise Equivalent Level (CNEL) or the day-night average level (L_{dn}) based on dBA. CNEL is the time-varying noise over a 24-hour period, with a weighting factor of 5 dBA applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and with a weighting factor of 10 dBA from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are normally exchangeable and within 1 dBA of each other. The City uses the CNEL noise scale for long-term noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max} , which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level.

The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

4.6.2.3 Physiological Effects of Noise

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise. The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

4.6.3 Existing Environmental Setting

4.6.3.1 Existing Project Site

The City is located in the south-central portion of Orange County. Historically, the City was once a part of South Orange County's expansive Moulton Ranch. Prior to the 1960s, dry farming and cattle grazing dominated the area, with a few scattered ranch dwellings and barns. In 1962, a portion of Moulton Ranch was purchased, and in 1964, it was developed into a retirement community for people aged 55 and older. The City is bounded on the northwest by Laguna Coast Wilderness Park and State Route 133 (SR-133) and on the northeast by Interstate 5 (I-5). State Route 73 (SR-73) is near the City's southern boundary. Additionally, the City is bordered on the north and southeast by the City of Laguna Hills, the City of Aliso Viejo on the south, the City of Laguna Beach and unincorporated Orange County on the west, and the City of Irvine on the northwest.

The City is substantially built out with little opportunity for additional development. Likewise, the roadway circulation network is fully established with no plans to widen or expand the existing network. The major roadways in the City are the primary noise source along with I-5.

4.6.3.2 Existing Sensitive Land Uses in the Project Vicinity

Certain land uses are considered more sensitive to noise than others. Examples of these land uses include residential areas, places of worship, educational facilities, childcare facilities, and recreational facilities. These land uses occur throughout various locations in the City and, in many cases, adjacent to the major roadways which comprise the primary circulation network.

The most predominant, noise-sensitive land use in the City is residential. This land use is considered especially noise sensitive because (1) considerable time is spent by individuals at home, (2) significant activities occur outdoors, and (3) sleep disturbance is most likely to occur in a residential area.

4.6.3.3 Overview of the Existing Noise Sources

Major noise sources in the City include freeways, major and minor arterial roadways, and noise-generating stationary sources. These can be grouped into two basic categories: transportation sources (primarily traffic) and non-transportation sources. The most significant and common source of noise in urban areas is transportation related. It includes automobiles, trucks, buses, motorcycles, railroads, and aircraft. Motor vehicle noise is of concern because of the traffic volume and roadway proximity to noise sensitive areas.

The primary roadway noise sources within the City limits consist of noise related to vehicle traffic on El Toro Road, Ridge Route Drive, Santa Maria Avenue, and Moulton Parkway. Laguna Hills Drive, Avenida de la Carlota, Paseo de Valencia, portions of Ridge Route Drive, and I-5 are primary noise sources located outside the City limits.

4.6.4 Regulatory Setting

4.6.4.1 Federal Regulations

United States Noise Control Act. In 1972, Congress enacted the United States Noise Control Act. This act authorized the United States Environmental Protection Agency (USEPA) to publish descriptive data on the effects of noise and establish levels of sound “requisite to protect the public welfare with an adequate margin of safety.” These levels are separated into health (hearing loss levels) and welfare (annoyance levels). For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to 70 dBA during a 24-hour period of time. At 55 dBA L_{dn} , 95 percent sentence clarity (intelligibility) may be expected at 11 feet (ft), with no community reaction. However, 1 percent of the population may complain about noise at this level and 17 percent may indicate annoyance. The USEPA cautions that these identified levels are guidelines, not standards.

4.6.4.2 State Regulations

State Noise Insulation Standard. The State of California’s noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

California Health and Safety Code, Division 28, Noise Control Act. The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare and that it is the policy of the State to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare. The goal is to minimize the number of people that would be exposed to excessive noise but not create an environment completely free from any noise.

State of California General Plan Guidelines. The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California Governor's Office of Planning and Research (OPR) 2017 *General Plan Guidelines* (OPR 2017), also provide guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The General Plan Guidelines present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

4.6.4.3 Regional Regulations

There are no regional regulations related to noise that are applicable to the proposed Project.

4.6.4.4 Local Regulations

City of Laguna Woods General Plan. The development of effective strategies to reduce impacts of excessive noise is an essential part of the land use planning process. Since 1971, the Noise Element has been one of the seven mandatory elements of a General Plan. The Noise Element requires that noise sources be considered in establishing land use patterns so as to minimize exposure of residents to excessive noise. The Noise Element of the City's General Plan¹ works to minimize the effects of noise through proper land use planning, transportation-related noise impacts, and non-transportation-related noise impacts. Applicable Noise Element objectives and policies include the following:

- **Objective I:** Protect, to the extent feasible, sensitive noise receptors from the detrimental effects of excessive noise.
 - **Policy IA:** Use noise mitigation measures to reduce the impact from transportation noise sources.
- **Objective II:** Recognize the potential effects of noise early in the land use planning process to minimize or avoid detrimental impacts.
 - **Policy IIB:** Incorporate noise considerations into land use planning decisions.

¹ City of Laguna Woods. 2002. November. Laguna Woods General Plan, Noise Element. Website: <https://www.cityoflagunawoods.org/wp-content/uploads/2015/07/2015-07-29-Adopted-CLW-Conservation-Element.pdf> (accessed November 2022).

4.6.5 Thresholds of Significance

The thresholds for noise impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines* and the *City's Local California Environmental Quality Act Procedures (2009)*. The proposed Project may be deemed to have a significant impact with respect to noise if it would result in:

- Threshold 4.6.1:** 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.
- Threshold 4.6.2:** Generation of excessive ground-borne vibration or ground-borne noise levels.
- Threshold 4.6.3:** 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?

4.6.6 Project Impacts

Threshold 4.6.1: **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 the local general plan or noise ordinance, or applicable standards of other agencies?**

Less Than Significant With Mitigation Incorporated. Potential temporary increases in ambient noise levels resulting from the future buildout of residential development projects enabled by the proposed Project that are subject to California Environmental Quality Act (CEQA) review would be reduced to a less than significant level with incorporation of Mitigation Measure (MM) N-1.

Future year average daily trips (ADT) were calculated by LSA for future year 2045 with and without the proposed Project for roadways within the City that were identified as major noise sources in Section 4.6.3.3. The change in ADT with and without the proposed Project ranged from a decrease of 580 ADT to an increase of 360 ADT. The largest increase in ADT (360) is projected on Moulton Parkway between Ridge Route Drive and Santa Maria Avenue. The 1 percent increase in ADT is negligible. Table 4.6.A provides a comparison of the future year 2045 ADT with and without the proposed Project and the resultant noise level change.

A 3 dBA increase is considered to be perceptible by the human ear in an outdoor environment. Therefore, the significance criteria define a significant impact to occur if a project would result in a substantial (3 dBA or greater) permanent increase in ambient noise levels in the project's vicinity above levels existing without the project.

Table 4.6.A: Traffic Noise Level Increase Comparing Without and With Proposed Project

Roadway	Segment	Future Year (2045) Without Project ADT	Future Year (2045) With Project ADT	Change in ADT	Noise Level Change (dBA CNEL)
El Toro Road	Between Moulton Parkway and Avenida de la Carlota	7,980	7,950	-30	0.0
Santa Maria Avenue	Between Avenida Sosiega and Santa Vittoria Drive	5,770	5,940	170	0.1
	Between Santa Vittoria Drive and Moulton Parkway	8,390	8,140	-250	-0.1
El Toro Road	Between Aliso Creek Road and Calle Corta	14,520	14,610	90	0.0
	Between Calle Corta and Canyon Wren Lane	14,060	13,850	-210	-0.1
	Between Canyon Wren Lane and Moulton Parkway	26,310	25,850	-460	-0.1
	Between Moulton Parkway and Avenida Sevilla	28,830	28,990	160	0.0
	Between Avenida Sevilla and Paseo de Valencia	28,520	28,710	190	0.0
Laguna Hills Drive	Between Moulton Parkway and Paseo de Valencia	19,720	19,730	10	0.0
Moulton Parkway	Between Ridge Route Drive and Santa Maria Avenue	30,250	30,610	360	0.1
	Between Santa Maria Avenue and El Toro Road	36,150	36,210	60	0.0
	Between El Toro Road and Calle Cortez	32,190	32,040	-150	0.0
	Between Calle Cortez and Glenwood Drive	30,030	29,880	-150	0.0
Avenida de la Carlota	Between Ridge Route Drive and Paseo de Valencia	14,920	14,890	-30	0.0
Paseo de Valencia	Between Avenida de la Carlota and El Toro Road	13,010	13,000	-10	0.0
	Between El Toro Road and Calle de la Magdalena	22,020	21,630	-390	-0.1
	Between Calle de la Magdalena and Los Alisos Boulevard	19,160	18,580	-580	-0.1
	Between Los Alisos Boulevard and Beckenham Street	31,860	31,360	-500	-0.1
	Between Beckenham Street and Laguna Hills Drive	31,300	30,830	-470	-0.1

Source: Compiled by LSA (November 2022).

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

Potential sources causing a permanent increase in ambient noise include noise resulting from increased traffic on roadways within the City. It is projected that traffic volumes on some streets within the City would increase and some would decrease due to the proposed land use changes allowed under the zoning overlays which replace previous land uses that generate higher traffic volumes than the proposed residential uses. For traffic noise to increase by 3 dBA, traffic volumes would have to double. It is assumed that the vehicle mix would remain the same for both scenarios analyzed. As shown in Table 4.6.A below, the change in traffic volumes would result in traffic noise increases of up to 0.1 dBA, which is considered less than the threshold of perceptibility for humans (i.e., 3 dBA). Therefore, traffic noise regulated under the proposed Project would not be readily perceptible in outdoor environments. The negligible increases and decreases in 2045 ADT with the Project are consistent with the City's Noise Element because there would be no change to sensitive noise receptors from the detrimental effects of excessive noise. Figure 4.6-1, Existing (2022) Traffic Noise Contours, illustrates the existing noise contours, and Figure 4.6-2, Future (2045) Traffic Noise Contours with Project, illustrates year 2045 noise contours with the Project.

Comparing the two figures, there is no discernible difference in the location of the 60, 65 and 70 dBA L_{dn} noise contours.

The Circulation, Land Use, and Noise Element updates and the renaming of the Circulation Element to the Mobility Element would not result in changes to the physical environment or result in impacts to recreation resources.

The Potential Housing Sites are adjacent to primary noise sources within the City (major roadways). The provision of additional housing units could result in noise-sensitive land uses being located within or adjacent to noise contours above 60 CNEL. However, any new construction would need to be consistent with the General Plan Noise Element as described below in Regulatory Compliance Measure (RCM) Noise-1.

Therefore, implementation of the proposed Project would not allow the exposure of persons to noise levels in excess of applicable standards, and impacts would be less than significant. No mitigation would be required.

Threshold 4.6.2: Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

Less Than Significant Impact. The proposed zoning overlays would allow for the development of 1,196 additional dwelling units on the Potential Housing Sites and would not generate operational vibration. In addition, vibration levels generated from Project-related traffic on the adjacent roadways are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Therefore, vibration generated from Project-related traffic on the adjacent roadways would be less than significant. No mitigation measures are required.

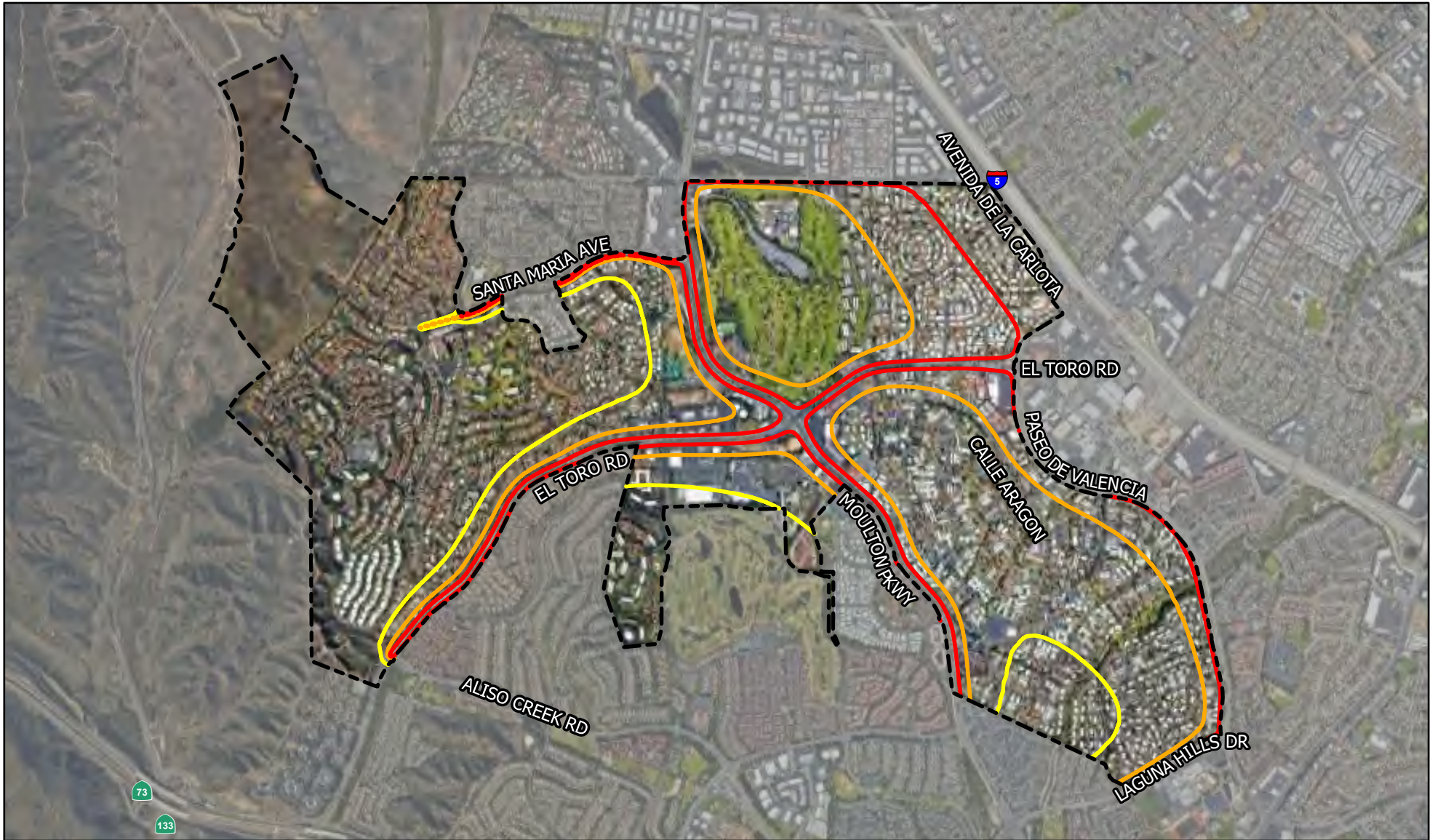

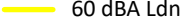
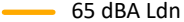
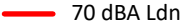
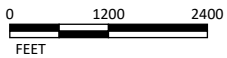


FIGURE 4.6-1

LSA

LEGEND

-  City of Laguna Woods
- Existing Traffic Noise Contours
 -  60 dBA Ldn
 -  65 dBA Ldn
 -  70 dBA Ldn



SOURCE: Google Maps

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Laguna Woods General Plan and Zoning Code Update
Existing Traffic Noise Contours

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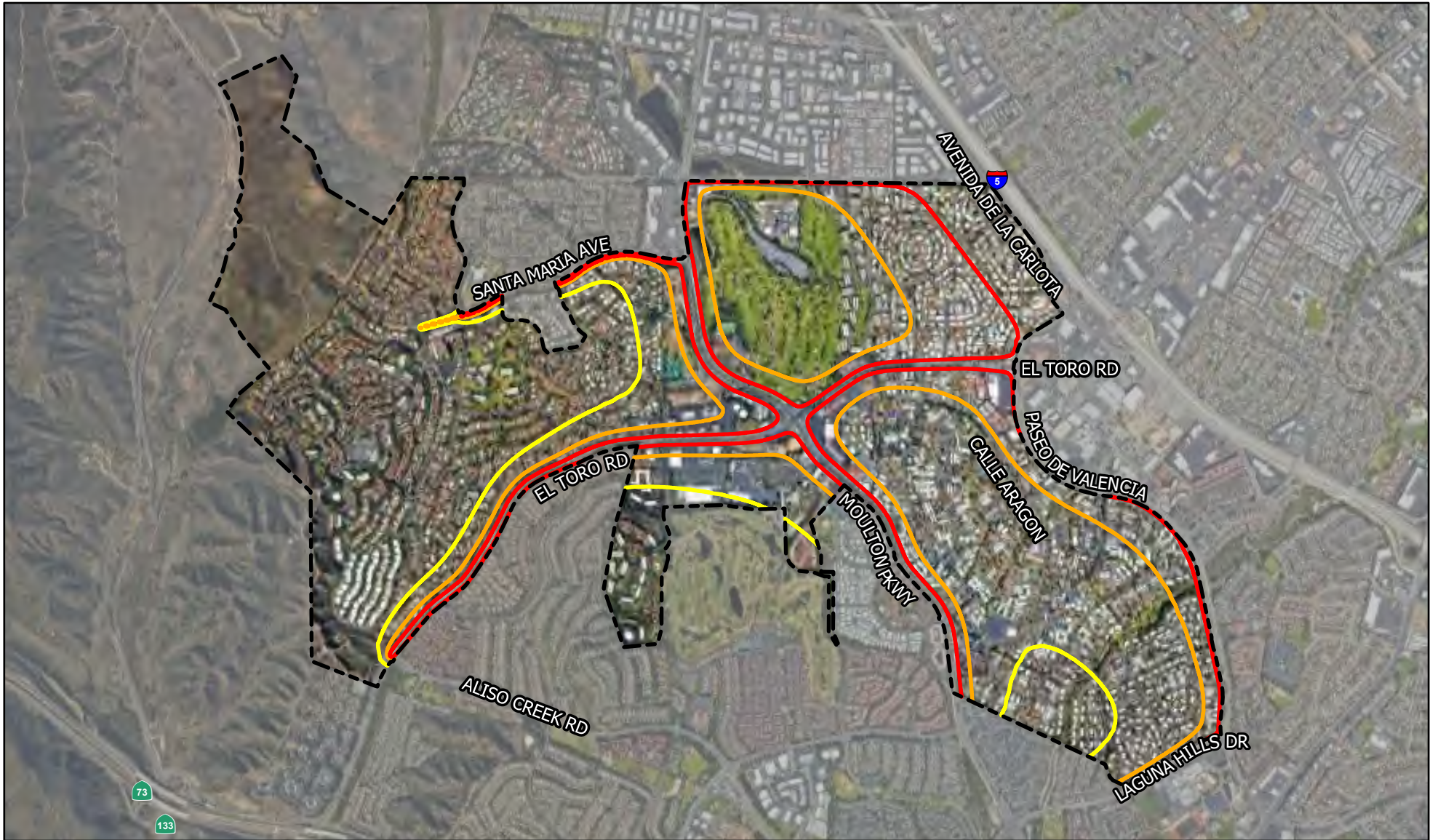




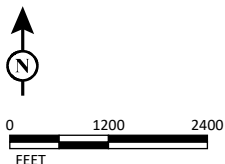


FIGURE 4.6-2

LSA

LEGEND

-  City of Laguna Woods
- Future Traffic Noise Contours
 -  60 dBA Ldn
 -  65 dBA Ldn
 -  70 dBA Ldn



SOURCE: Google Maps

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Laguna Woods General Plan and Zoning Code Update
 Future (2045) Traffic Noise Contours with Project

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Threshold 4.6.3: 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. The nearest airport to the Potential Housing Sites and the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses is John Wayne Airport, which is over 10 miles northwest. John Wayne Airport is a commercial and general aviation airport that serves Orange County and the Greater Los Angeles area. The Potential Housing Sites and the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are not located within 2 miles of an airport or within the jurisdiction of an airport land use plan. No impacts would occur, and no further analysis is required.

4.6.7 Level of Significance Prior to Mitigation

Through compliance with the City's General Plan and RCM Noise-1, potential noise impacts related to future residential dwelling units would be less than significant. Potentially significant temporary impacts associated with construction of the proposed Project would be reduced to a less than significant level with the incorporation of Mitigation Measure (MM) N-1, as presented below.

4.6.8 Regulatory Compliance Measures and Mitigation Measures

RCM Noise-1 Prior to the issuance of building permits by the City of Laguna Woods (City), the City shall conduct site plan review for any residential units located within 60 Community Noise Equivalent Level (CNEL) noise contours and above. The site plan review shall be conducted consistent with the City's Noise Element. New construction or development should be undertaken only after detailed analysis of the noise requirements is made and any required noise insulation features included in the design. The interior noise standard is 45 decibels (dB). The exterior standard for habitable exterior living areas, including private yards, private patios and balconies, and common recreation areas, is 65 dB.

MM N-1 Prior to discretionary approval by the City of Laguna Woods (City), residential development projects subject to California Environmental Quality Act (CEQA) review (i.e., nonexempt projects) would be required to incorporate the following conditions:

- Prior to the issuance of building permits, the applicant shall submit a final acoustical report consistent with the requirements of the California Building Standards Code or City policy, provided that City policy is no less effective than the California Building Standards Code.
 - The final acoustical report shall describe in detail the noise environment and mitigation measures necessary to achieve compliance with applicable noise standards. The report shall also describe and depict the locations of the acoustical barriers and design features of the structures required to satisfy the exterior and interior noise standards along with satisfactory evidence, which

indicates that the sound attenuation measures specified in the final acoustical report, have been incorporated into the design of the project. Noise level calculations shall be provided using the Community Noise Equivalent Level (CNEL) noise scale.

- The applicant shall incorporate the requirements of the City's Noise Ordinance as a note on the grading plan cover sheet, for review and approval by the City.
- The applicant shall incorporate the following measures as a note on the grading plan cover sheet:
 - Construction equipment, fixed or mobile, shall be maintained in proper operating condition with approved noise mufflers.
 - Construction staging areas shall be located away from off-site receptors and occupied buildings on site during the later phases of project development.
 - Stationary equipment shall be placed such that emitted noise is directed away from residential areas to the greatest extent feasible.
 - Construction access routes shall be selected to minimize truck traffic near existing residential uses where reasonably feasible.

4.6.9 Cumulative Impacts

The purpose of this section is to evaluate any additional incremental impact that the proposed Project is likely to cause over and above the combined impacts of recently approved and proposed projects in Laguna Woods. A cumulative noise or vibration impact would occur if multiple sources of noise and vibration combine to create impacts in close proximity to a sensitive receptor. Therefore, the cumulative area for noise impacts is the City's General Plan planning area and any sensitive receptors within the planning area.

Cumulative growth within the City could result in temporary or periodic increases in ambient noise levels at development sites throughout the City. However, construction-related noise would be temporary and would no longer occur once construction of individual projects is completed. In addition, construction activities associated with development anticipated under the proposed Project would be subject to compliance with the City's Noise Ordinance to ensure that noise impacts from construction sources are reduced. These activities would also be carried out in accordance with RCM Noise-1, which identifies that future housing units will be constructed consistent with the City's General Plan Noise Element. With compliance with the City's Noise Ordinance and RCM Noise-1, impacts from the proposed Project would not be considered cumulatively considerable.

The proposed Project would not create a cumulatively considerable contribution to regional noise conditions. For traffic noise to increase by 3 dBA, traffic volumes would have to double. Implementation of the proposed Project would not result in a doubling of average daily trips, and therefore, implementation of the proposed Project would not result in a 3 dBA increase in traffic

noise levels in the City. Further, based on a review of the Orange County Transportation Analysis Model (OCTAM) growth forecast within the City, which was used to determine VMT impacts of the proposed Project, model assumptions forecast minimal growth of households and employment for the City. Therefore, the likelihood of cumulatively considerable projects overlapping with the proposed Project is low.

Additionally, as previously noted, the proposed land use designation and zoning changes on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are proposed to accurately reflect existing uses and would not generate additional traffic nor additional noise. Therefore, the proposed Project would not result in cumulatively considerable long-term impacts related to noise.

4.6.10 Level of Significance After Mitigation

With incorporation of Mitigation Measure N-1, the proposed Project would have less than significant impacts related to noise and vibration.

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4.7 POPULATION AND HOUSING

4.7.1 Introduction

This section describes the existing population and housing characteristics of Laguna Woods and Orange County and evaluates the potential impacts of the proposed Laguna Woods General Plan and Zoning Code Update (proposed Project) on population, housing, and employment growth. This section is based on sources of demographic information provided by various agencies, including the Southern California Association of Governments (SCAG), the City of Laguna Woods (City) General Plan's Housing Element (2023), the California Department of Housing and Community Development (HCD) 6th Cycle Regional Housing Needs Allocation, the California Employment Development Department (EDD), and the United States Census Bureau.

4.7.1.1 Scoping Process

The City received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). Two comment letters included comments related to population and housing.

The letter from SCAG (August 15, 2022) requested that the proposed Project be consistent with the adopted Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and its goals. The letter from Caltrans (August 30, 2022) requested that the Project consider including a discussion on equity in the General Plan Element updates.

4.7.2 Methodology

Both City and County demographic information was used to describe the existing population, housing, and employment characteristics in Laguna Woods and Orange County. SCAG projections for these topics were identified for the existing conditions and Project build out. City goals and policies regarding population and housing were used to evaluate potential impacts that could result from the implementation of the proposed Project.

4.7.3 Existing Environmental Setting

4.7.3.1 Population, Housing, and Employment Trends in the City and County

Laguna Woods is characterized by urban areas, including single-family and multifamily residential uses and small concentrations of commercial, office, open space, and community facilities uses. Laguna Woods also contains several regional and community facilities and open space areas. Laguna Woods is primarily characterized by its population of older adults living in age-restricted communities.

Laguna Woods and Orange County are located within the SCAG planning area, which encompasses a population exceeding 19 million residents in an area of more than 38,000 square miles. SCAG is a federally designated Metropolitan Planning Organization (MPO)¹ encompassing six counties

¹ An MPO is a federally mandated and federally funded transportation policymaking organization that is made up of representatives from local government and governmental transportation authorities. In 1962, the United States Congress passed legislation that required the formation of an MPO for any urbanized area with a population greater than 50,000.

(Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties) and 191 cities. In 2020, the SCAG Regional Council adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Demographics and Growth Forecast (SCAG 2020) to project growth in employment, population, and households at the regional, county, jurisdictional, and sub-jurisdictional levels. The SCAG RTP/SCS Demographics and Growth Forecast is meant to provide a common foundation for regional and local planning, policymaking, and infrastructure provisions within the SCAG region.

The growth forecast for Orange County and Laguna Woods in the SCAG RTP/SCS Growth Forecast is provided in Tables 4.7.A and 4.7.B. These projections are used as a reference point for discussing population and housing growth throughout this section.

Table 4.7.A: SCAG Population, Households, and Employment Forecasts for Orange County (2020–2045)

Year	Population	Households	Employment
2016	3,180,000	1,025,000	1,710,000
2020	3,268,000	1,065,000	1,774,000
Percent Change (2016–2020)	2.8%	3.9%	3.7%
2030	3,441,000	1,104,000	1,886,000
Percent Change (2016–2030)	8.2%	7.7%	10.3%
2035	3,499,000	1,125,000	1,928,000
Percent Change (2016–2035)	10.0%	9.8%	12.7%
2045	3,535,000	1,154,000	1,980,000
Percent Change (2016–2045)	11.2%	12.6%	15.8%

Source: 2020–2045 RTP/SCS Demographic and Growth Forecast (SCAG 2020). Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf (accessed July 6, 2022).
RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy
SCAG = Southern California Association of Governments

Table 4.7.B: SCAG Population, Households, and Employment Forecasts for Laguna Woods (2016–2045)

Year	Population	Households	Employment
2016	16,300	11,400	5,400
2045	16,500	11,500	6,800
Percent Change (2016–2045)	1.3%	0.9%	25.9%

Source: 2020–2045 RTP/SCS Demographics and Growth Forecast (SCAG 2020). Website: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf (accessed July 6, 2022).
RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy
SCAG = Southern California Association of Governments

Population. As shown in Tables 4.7.A and 4.7.B, according to the 2020–2045 RTP/SCS Demographics and Growth Forecast by Jurisdiction (SCAG 2020), Laguna Woods’ population is anticipated to grow by approximately 1.3 percent between 2016 and 2045, and Orange County’s population is expected to grow by 11.2 percent between 2016 and 2045. The 2020–2045 RTP/SCS Demographics and Growth Forecast by Jurisdiction does not contain information for the years 2020, 2030, or 2035 at the City level, and therefore, those years are omitted from Table 4.7.B. Orange County’s population is anticipated to increase by approximately 8.2 percent by 2030, 10.0 percent by 2035, and

11.2 percent by 2045 from the County’s 2016 population of 3,180,000 persons, thereby showing an anticipated steady increase in population from the base year.

Age Characteristics. A city’s age distribution often shapes its housing demand. According to the City of Laguna Woods General Plan Housing Element (2023), different age groups require different accommodations based on lifestyle, family type, income level, and housing preference. Table 4.7.C provides a comparison of Laguna Woods’ and Orange County’s population by age group using data from the 2018 American Community Survey (ACS) 5-year estimate. As shown in Table 4.7.C, Laguna Woods and Orange County greatly differ in their proportions of residents in each age group. The largest portion of the population for Laguna Woods is the 65 and over age group (82.8 percent) whereas the largest portion of the population for Orange County is the 25 to 44 years age group (27.4 percent). The median age of Laguna Woods is 75 years old whereas the median age for Orange County is 38 years old, suggesting that the population median age in Laguna Woods is much older than that in Orange County.

Table 4.7.C: Laguna Woods and Orange County Age Characteristics

Age Group	Laguna Woods		Orange County
	Persons	Percentage	Percentage
Under 5 Years	0	0.0%	6.0%
5 to 17 Years	10	0.1%	17.0%
18 to 24 Years	23	0.1%	9.5%
25 to 44 Years	100	0.6%	27.4%
45 to 64 Years	2,666	16.5%	26.6%
65 and Over	13,429	82.8%	13.9%
Total	81,812	100.0%	100.0%
Median Age	75		38

Source: United States Census Bureau. Table S0101, American Community Survey 2018 5-Year Estimate (U.S. Census Bureau 2018).

Households.² As shown in Tables 4.7.A and 4.7.B, Laguna Woods’ number of households is anticipated to grow by 0.9 percent and Orange County’s number of households is anticipated to grow by 12.6 percent between 2016 and 2045. Laguna Woods’s number of households is anticipated to increase by approximately by 100 households between 2016 and 2045, while Orange County’s number of households is anticipated to increase by approximately 129,000 households between 2016 and 2045.

Employment. As shown in Tables 4.7.A and 4.7.B, according to the 2020–2045 RTP/SCS Demographics and Growth Forecast (SCAG 2020), employment in Laguna Woods is anticipated to grow by approximately 25.9 percent between 2016 and 2045, and employment in Orange County is expected to grow by 15.8 percent between 2016 and 2045, representing an increase of approximately 0.9 percent and 0.5 percent, respectively. Employment in Laguna Woods is anticipated to increase by approximately by 1,400 employees between 2016 and 2045, while employment in Orange County is anticipated to increase by approximately 270,000 employees between 2016 and 2045.

² The Southern California Association of Governments forecasts “households” not housing units. As defined by the United States Census Bureau, “households” are equivalent to occupied housing units.

As of May 2022, Laguna Woods had a labor force of 3,200, and Orange County had a labor force of 1,581,400, with approximately 100 and 38,400 people unemployed, respectively (EDD 2022c). The May 2022 unemployment rate was 2.3 percent for Laguna Woods and 2.4 percent for Orange County. As of May 2022, construction employment in Orange County was 104,800. This is similar to construction employment in the previous year (101,800 employees in May 2021) (EDD 2022a). Construction in Orange County is approximately 10.6 percent above Orange County's 10-year construction employment average from May 2012 to May 2022 (94,787 construction jobs) (EDD 2022b).

Jobs/Housing Balance. Jobs/housing balance is a regional concept that encourages the designation and zoning of sufficient land for residential uses with appropriate standards to ensure that adequate housing is available to serve the needs derived from the local employment base. The jobs-to-housing ratio can be used as the general measure of balance between a community's employment opportunities and the housing needs of its residents. Theoretically, a city's jobs/employment ratio (number of jobs compared to number of employed residents) would be 1:1 if the number of jobs in the City equaled the number of employed residents. However, assuming a simple ratio of one job to one household is inappropriate in modern economies that have many households with more than one person in the workforce. According to SCAG's *The New Economy and Jobs/Housing Balance in Southern California*, a balance between jobs and housing in a metropolitan region can more appropriately be defined as a provision of an adequate supply of housing to house workers employed in a defined area (i.e., subregion or community) (SCAG 2001).

The City's General Plan Housing Element states that it ranks 33rd of the 34 cities in Orange County in the Orange County Business Council's Workforce Housing Scorecard, which addresses total job growth, housing as a percentage of total Orange County housing, jobs-to-housing ratio, and changes in housing density. However, the City of Laguna Woods has been developed primarily with age-restricted residential uses along with some limited commercial and service sector uses. Laguna Woods and the surrounding subregions are considered "housing rich," and many residents drive to other parts of Orange County or neighboring counties for employment.

SCAG applies the jobs-to-housing ratio at the regional and subregional level as a tool for analyzing the fit between jobs, housing, and infrastructure. The American Planning Association (APA) is an authoritative resource for community-planning best practices, including recommendations for assessing jobs-to-housing ratios. The APA recognizes that an ideal jobs-to-housing ratio will vary from jurisdiction to jurisdiction. In general, the recommended target for an appropriate jobs-to-housing ratio is 1.5, with a recommended range of 1.3 to 1.7 (APA 2003).

Laguna Woods is not currently within the jobs-to-housing ratio range recommended by the APA. According to the 2020–2045 RTP/SCS Demographics Growth Forecast (SCAG 2020), Laguna Woods had a jobs-to-housing ratio of 0.5 in 2016³ and is projected to have a jobs-to-housing ratio of 0.6 in 2045.⁴ The low ratio of jobs-to-housing is mostly due to the fact that majority of the housing in the City is allocated for seniors aged 55 and up who are likely to be retired.

³ 5,400 employees / 11,400 households = 0.5

⁴ 6,800 employees / 11,500 households = 0.6

4.7.4 Regulatory Setting

4.7.4.1 Regional Regulations

Southern California Association of Governments. As the designated MPO for the six-county subregion that includes Orange County, SCAG prepares several plans to address regional growth, including the RTP/SCS. The regional growth forecasts undertaken by SCAG are developed for three planning horizons: 2030, 2035, and 2045. SCAG is mandated by federal and State law to research and draw up plans for transportation, growth management, hazardous waste management, and a regional growth forecast that is the foundation for these plans and regional air quality plans developed by the South Coast Air Quality Management District (SCAQMD). SCAG prepares several plans to address regional growth, including the Regional Comprehensive Plan and Guide, Regional Housing Needs Assessment (RHNA), the Regional Transportation Plan (RTP), the Regional Transportation Improvement Program (RTIP), and the annual State of the Region reports to measure progress toward achieving regional planning goals and policies.

Regional Comprehensive Plan. The Regional Comprehensive Plan (RCP), prepared by SCAG to address regional growth, was adopted in 2008 by the member agencies of SCAG. The RCP sets broad goals for the Southern California region and identifies strategies for local and regional agencies to guide their decision-making process. The RCP provides strategies for local governments to address issues related to future growth within a regional context. The RCP is provided to local governments for their voluntary use when preparing local plans and handling local issues of regional importance.

The current RCP incorporates and summarizes the SCAG Compass Growth Vision and the 2% Strategy adopted by the Regional Council in April 2008. The recommendations made in the RCP call for infrastructure and resource activities consistent with the envisioned growth pattern. The policies in the RCP attempt to reduce emissions and increase mobility through strategic land use changes.

The majority of the RCP goals and policies are applicable to SCAG and the local governments and are not applicable at the individual project level. However, the following RCP/Compass Blueprint land use and housing strategies are applicable to the proposed Project:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Injecting new life into underused areas by creating vibrant new business districts, redeveloping old buildings, and building new businesses and housing on vacant lots

Regional Transportation Plan/Sustainable Communities Strategy. The 2020–2045 RTP/SCS was adopted on September 3, 2020. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The long-term vision will address regional transportation and land use challenges and opportunities.

The RTP/SCS includes:

- Visions, policies, and performance measures
- Forecasts (e.g., population, households, employment, land use, and housing needs)

- A financial plan
- A list of projects (to be initiated and/or completed by 2040)
- An analysis of priority focus areas (e.g., goods movement and active transportation)

Regional Growth Forecast. The regional growth forecasts undertaken by SCAG are developed in 5-year increments through 2040. The projected growth in population, household, and employment comprise the data relied upon during development of SCAG’s RTP, SCS, and RHNA. Consistency with the growth forecast at the subregional level is one criterion that SCAG uses in exercising its federal mandate to review “regionally significant” development projects for conformity with regional plans.

Regional Housing Needs Assessment. Local jurisdictions are required by State law (Government Code Section 65580 et seq.) to plan for their fair share of projected housing construction needs in their region. Housing unit construction goals are set by the State Department of Housing and Community Development and allocated to cities through regional planning agencies such as SCAG. This is called the Regional Housing Needs Assessment (RHNA). Future housing need refers to the proportion of the region’s future housing needs allocated to a community. Each jurisdiction’s future housing need is calculated in terms of four factors: (1) the number of units needed to accommodate forecast global household growth; (2) the number of units needed to replace demolition due to attrition in the housing stock (i.e., fire damage, obsolescence, redevelopment, and conversion to non-housing uses); (3) maintenance of an ideal vacancy rate for a well-functioning housing market; and (4) an adjustment to avoid an overconcentration of lower-income households in any one jurisdiction.

The RHNA prepared by SCAG defines the housing unit goals for the region. The City’s share for the planning period between October 1, 2021, and October 1, 2029, (the current adopted RHNA period) was established by SCAG at 997 units. The RHNA target number was based on projected household growth and the resulting need for construction of additional housing units allocated over an 8-year planning period (2021–2029). This 997-unit share was divided into the following income groups according to median family income (MFI) (see Table 4.7.D):

Table 4.7.D: City of Laguna Woods RHNA Allocation by Income Category

Income Level	Percentage of Area MFI	No. of Units	Percent of Total Housing Needs Allocation
Very Low	0–50%	127	12.7%
Low	51–80%	136	13.6%
Moderate	81–120%	192	19.3%
Above Moderate	>120%	542	54.4%

Source: City of Laguna Woods General Plan Housing Element (Laguna Woods 2022).

MFI = median family income

RHNA = Regional Housing Needs Assessment

Each jurisdiction is required to create an annual report on the status and progress in implementing the housing element of its general plan using forms and definitions adopted by the California Department of Housing and Community Development (HCD). The first annual report for the current Housing Element was submitted to HCD in 2024 and indicated that no new housing was constructed.

4.7.4.2 Local Regulations

City of Laguna Woods General Plan Housing Element. The Housing Element is required by California State law to be a component of every city's General Plan because housing needs are recognized as a statewide concern. As such, the Housing Element of a jurisdiction's General Plan is the only element that is subject to approval by the State. Pursuant to State law, the Housing Element must identify the City's housing needs, the sites that can accommodate these needs, and the policies and programs to assure that the housing units necessary to meet these needs can be provided. The primary goal of the Housing Element is to provide a range of housing opportunities for all income groups.

In February 2022, the 2021–2029 Housing Element was adopted as a guide for housing within Laguna Woods. The Housing Element provides an indication of the need for housing in the community and addresses housing development, housing conservation, affirmatively furthering fair housing, and housing element implementation. The following goals are found in the City's Housing Element:

- **Goal H-1:** Enable the development of housing necessary to accommodate current and projected housing needs, including for lower-income households and other special needs populations.
- **Goal H-4:** Provide for analysis related to housing element implementation.

The Housing Element also contains policy objectives and programs that are intended to formulate the City's approach to pursuing the production, preservation, and rehabilitation of housing units and to meeting its goals outlined above.

City of Laguna Woods General Plan Land Use Element. The Laguna Woods General Plan Land Use Element also contains a policy relating to ensuring that new development is supported. The following policy is found in the City's Land Use Element:

- **Policy I.A:** Facilitate development of a variety of housing types that appeal to a broad spectrum of prospective new residents.

4.7.5 Thresholds of Significance

The thresholds for population and housing impacts used in this analysis are consistent with Appendix G of the *State of California Environmental Quality Act Guidelines (State CEQA Guidelines)*. The proposed Project may be deemed to have a significant impact with respect to population and housing if it would do the following:

- Threshold 4.7.1:** 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).
- Threshold 4.7.2:** Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

4.7.6 Project Impacts

Threshold 4.7.1: **Would the project 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. As discussed above, the City's housing needs allocation for the planning period between October 2021 and October 2029 is 997 units.

The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. Of the Potential Housing Sites, nine sites (Sites 1–8 and Site 15) would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per acre (du/ac). Five sites (Sites 9–12 and Site 17) would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites (Sites 13 and 16) would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and Site 14 would be within the Residential Medium Density Overlay, which would allow between 20–30 du/ac.

The proposed Project would also amend the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. The zoning districts on 10 properties (Site 18 and Sites 21–29) would be changed from Community Commercial, Open Space – Recreation, Open Space – Passive, and Residential Community to Community Facilities – Public/Institutional. The zoning districts on the other two properties would be changed from Residential Community to Open Space – Passive (Site 19) and from Residential Multifamily to Open Space – Recreation (Site 20). As noted above, these minor administrative changes are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. Therefore, the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses would not induce substantial unplanned growth.

The zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units. According to the 2017 American Housing Survey (AHS), the average household size in structures that have 50 or more housing units (the highest housing density type evaluated in the AHS) in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area (MSA) was 1.99 persons. Because most of the proposed zoning overlays would allow for higher density housing, 1.99 persons per household was deemed appropriate for use in the analysis contained in this PEIR. Therefore, the additional 1,196 housing units that would potentially be built in the City are estimated to result in an increase in 2,382 residents.

Future development allowed under the rezoning program would accommodate planned regional housing growth included in the SCAG RHNA. Any future projects implemented in accordance with the proposed zoning overlay and updated land use designations would be required to adhere to the City's General Plan, provide required development impact fees, and comply with applicable development regulations. Ultimately, as part of the development review process, all future projects would be required to demonstrate that service providers would ensure adequate public services and utilities are available. Additionally, each of the Potential Housing Sites is located in urbanized settings with a full range of public services and utilities. Sixteen of the Potential Housing Sites are

currently developed with non-residential land uses, and one of the Potential Housing Sites is a vacant parcel located in an urbanized location and surrounded by a built environment. Future residential uses would replace existing land uses and not induce additional growth or require the extension of roads or other infrastructure because the roads and infrastructure are already in place with adequate capacity to serve the Potential Housing Sites. Thus, any public service or utility demand associated with the proposed Project would not be substantial because it would be located within an area capable of supporting it; impacts would be less than significant, and no mitigation measures would be required.

The proposed Project includes text changes in the Land Use Element. These text changes provide internal consistency between General Plan Elements and would not facilitate or entitle any physical development that would result in impacts to public services and utilities. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan update. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development that would result in impacts to public services and utilities. Therefore, the Noise Element update would have no impact on public services and utilities. The Project includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. "Mobility" is purposefully used in this element's title to emphasize the City's commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines "users of streets, roads, and highways" as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on public services and utilities. As mentioned earlier, the City is substantially built out, and the Mobility Element focuses on maintaining and coordinating the City's balanced multi-modal transportation network which is beneficial to public services and utilities by utilizing existing resources to enhance mobility. Thus, any public services or utility demand associated with the proposed zoning overlays would not be substantial; impacts would be beneficial in terms of efficient utilization of existing infrastructure, and no mitigation measures would be required.

Threshold 4.7.2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed Project would amend the City's Zoning Ordinance and the Circulation, Land Use, and Noise Elements of the City's General Plan and rename the Circulation Element to the Mobility Element. The zoning overlays that are proposed as a part of the Project would allow for the construction of up to 1,196 housing units. The proposed zoning overlays would not displace existing people or housing because none of the Potential Housing Sites are currently developed with residential uses. Rather, the proposed Project would add increased housing opportunities for future residents of the City. Text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in impacts to population or housing. The changes to the land use designations and zoning on the Sites

Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. None of the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are developed with residential uses, thus no displacement of existing people or housing would occur. Therefore, the proposed Project would not result in any impacts related to the displacement of substantial numbers of existing people or housing. No mitigation is required.

4.7.7 Level of Significance Prior to Mitigation

The proposed Project would not result in potentially significant impacts related to population or housing.

4.7.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are applicable to the proposed Project pertaining to population and housing.

4.7.9 Cumulative Impacts

The purpose of this section is to evaluate any additional incremental impact that the proposed Project is likely to cause over and above the combined impacts of recently approved and proposed projects in Laguna Woods. The impact area used to assess potential cumulative population and housing impacts is Laguna Woods because the proposed Project would affect population and housing within Laguna Woods. The City has not seen any new housing development since completion of the San Sebastian development project in 2008. Therefore, the cumulative impacts associated with the proposed Project would only consider impacts from implementation of the proposed Project which would contribute to population and housing growth in the Project vicinity.

The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. The proposed Project would also amend the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. These minor administrative changes are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. As such, the approval of these minor administrative changes would not result in any cumulative population and housing impacts. The proposed zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units. Future development allowed under the rezoning program would accommodate planned regional housing growth included in the SCAG RHNA. Any future projects implemented in accordance with the proposed zoning overlay and updated land use designations would be required to adhere to the General Plan, provide required development impact fees, and comply with applicable development regulations. Additionally, the proposed Project would not, in and of itself, result in impacts from the displacement of people or housing, because none of the Potential Housing Sites are currently developed with residential uses. Therefore, the impacts from the proposed Project are not considered to be cumulatively considerable.

4.7.10 Level of Significance After Mitigation

The proposed Project would not result in potentially significant impacts related to population or housing, and mitigation measures are not required.

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4.8 PUBLIC SERVICES

4.8.1 Introduction

This section describes the public services within the City of Laguna Woods (City) and evaluates the potential impacts of the proposed Project on public services. This section addresses the following public services (service providers are noted in parentheses):

- Fire Protection (Orange County Fire Authority [OCFA])
- Police Protection (Orange County Sheriff's Department [OCSD])
- Public Schools (Saddleback Valley Unified School District [SVUSD], Laguna Beach Unified School District [LBUSD], and Capistrano Unified School District [CUSD])
- Parks (City of Laguna Woods)
- Public Libraries (OC Public Libraries [OCPL])

4.8.1.1 Scoping Process

The City received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). Two letters included comments related to public services.

The letter from the Saddleback Valley Unified School District (SVUSD) (August 8, 2022) requested that the PEIR evaluate the potential impacts of the Project on SVUSD schools by identifying the location of the properties and calculating the number of dwelling units that may be developed as well as the number of students generated, by grade level and school. SVUSD also requested an evaluation of potential impacts on school capacity and possible overcrowding, and requested that the PEIR and the proposed updates to the City's General Plan focus on possible impacts to student safety and well-being.

The letter from the California Department of Transportation (Caltrans) (August 30, 2022) requested that the Project consider providing a discussion about the City's multimodal mobility strategies relating to transit bus and rail services as well as active transportation for local and regional connectivity. Caltrans also requested that the Project consider a discussion about wayfinding signage to transit stops within the Project vicinity and local roadways.

4.8.2 Methodology

Demographic information and information regarding the public services for the City of Laguna Woods was used to describe the environmental setting in the City. This information was obtained through the use of the City's General Plan, the City's Municipal Code, the United States Census Bureau, and individual websites for each of the City's public service agencies.

4.8.3 Existing Environmental Setting

4.8.3.1 Fire Protection

The City contracts with the Orange County Fire Authority (OCFA) for fire protection services. OCFA is a Joint Powers Authority responsible for reducing loss of life and property from fire, medical, and environmental emergencies. OCFA serves 23 cities in Orange County (County) and all unincorporated areas in the County and protects over 1.9 million residents through its 77 fire stations located throughout the County.

In addition to providing fire, emergency medical, and rescue services, OCFA provides a variety of public services, including:

- Receiving and dispatching emergency calls;
- Providing public education programs to schools, businesses, community associations, childcare providers, and other members of the community;
- Administering a Reserve Firefighter Program;
- Adopting and enforcing codes and ordinances relative to fire and life safety issues associated with commercial, industrial, and residential development;
- Maintaining firefighting helicopters used for emergency responses throughout the year;
- Coordinating the inspection of all commercial buildings, investigating all fires, and enforcing fire code hazardous materials inspections;
- Working with developers and jurisdictional planning departments on development projects impacting fire protection services, from conception through planning process approval;
- Interacting with developers, architects, and engineers to meet the fire protection requirements for buildings and developments by reviewing all architectural blueprints, development plans, and proposals submitted in OCFA's jurisdiction;
- Conducting an inventory program of hazardous materials stored, handled, and used within OCFA's jurisdiction, and maintaining related information on a database accessible to all emergency response agencies in the event of a major emergency;
- Conducting California Fire Code inspections, assisting in reducing risks associated with the use of hazardous materials in the community, and administering the State-mandated Risk Management and Prevention program;
- Investigating fires to determine their cause, preparing arson and hazardous materials cases for the District Attorney's Office, and initiating actions to recover costs for negligently caused fires; and

- Developing and maintaining a fire-safe corridor between the wildland and community developments through fuel modifications and inspections.

Laguna Woods is in Division 5, which includes Battalion 4. Division 5 serves the Cities of Laguna Woods, Lake Forest, Aliso Viejo, Laguna Hills, and Laguna Niguel.

Fire Station No. 22 is the only OCFA station within Laguna Woods. The fire station is located at 24001 Paseo de Valencia in the northeastern portion of the City. Fire Station No. 22 personnel would be the first responders to the Potential Housing Site in the event of an emergency and would therefore be designated as the “first-in” station. Station No. 22 is staffed by three fire captains, three fire apparatus engineers, and six firefighters. In 2021, OCFA responded to 6,016 calls in Laguna Woods (OCFA 2021).

In the previous decade, OCFA’s average response time¹ for emergency calls remained relatively constant at less than 5:53 minutes per call (OCFA 2022b). Response time, which measures the elapsed time between a 9-1-1 call answer and the first fire department unit arrival, is 7:03 (80th percentile) and 8:12 (90th percentile) (OCFA 2022b). The ratio of firefighters to residents is 5.9 firefighters per 10,000 residents.

4.8.3.2 Police Protection

The City contracts with the Orange County Sheriff’s Department (OCSD) for law enforcement services. According to the OCSD’s website, the OCSD has approximately 3,800 sworn and professional staff members and more than 800 reserve personnel (OCSD 2022a). The OCSD’s Southwest Operations Division provides law enforcement services to more than 305,000 residents within the southern portion of the County, including the City of Laguna Woods. OCSD personnel are assigned to the City, including a Captain and Deputy Sheriffs.

4.8.3.3 Public Schools

The provision of education and school facilities in Laguna Woods is the responsibility of three separate school districts: the Saddleback Valley Unified School District (SVUSD), the Laguna Beach Unified School District (LBUSD), and the Capistrano Unified School District (CUSD). All 17 of the Potential Housing Sites are located within the jurisdiction of SVUSD. Additionally, 11 of the 12 Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are also located within the jurisdiction of SVUSD. Site 23, which is located in the southwestern portion of the City, is within the LBUSD’s attendance boundaries. As previously discussed, the proposed administrative changes on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to ensure that the land use designations and zoning reflect existing conditions and would not result in student generation. Because all of the Potential Housing Sites are located

¹ OCFA defines response time as the time interval between Dispatch Notification and Arrival on Scene. It includes Dispatch time, Turnout time, and Travel time. Response time goals are established through OCFA policy. Response time performance is generally measured for the first unit on scene (Distribution) and for an Effective Response Force (Concentration). Incident response times are impacted by many variables including availability of first due units, travel distance, traffic, geography, weather, and street networks.

within the SVUSD, analysis regarding student generation will only consider the SVUSD and not the LBUSD or CUSD.

SVUSD has a capacity of 30,598 students as of the 2021–2022 school year and includes all or part of Laguna Woods, Aliso Viejo, Irvine, Laguna Hills, Laguna Niguel, Lake Forest, Mission Viejo, Rancho Santa Margarita, and unincorporated Orange County (SVUSD 2022b). Governed by a six-member Board of Education—including one student member—SVUSD currently (2021–2022 school year) operates 23 elementary schools (grades TK–6), 4 middle schools (grades 7–8), 4 high schools (grades 9–12), and 4 alternative education schools.

Although the City is not currently included within a specific school attendance boundary, the following SVUSD schools are likely to serve the Potential Housing Sites based on their proximity to the City: San Joaquin Elementary, Aliso Viejo Middle School, and Laguna Hills High School. Table 4.8.A shows district-wide capacity by school level and the excess or shortage in capacity to accommodate for those students.

Table 4.8.A: Existing School Facilities Capacity and Student Enrollment

School Level	2021–2022 Facilities Capacity	2021–2022 Student Enrollment	Excess/(Shortage) Capacity
Elementary School	14,830	12,203	2,627
Intermediate School	4,995	3,585	1,410
High School	10,773	8,460	2,313
Total	30,598	24,248	6,350

Source: *Residential and Commercial/Industrial Development School Fee Justification Study*, Table 1 (SVUSD 2022b).
SVUSD = Saddleback Valley Unified School District

As shown in Table 4.8.A, the capacity of the SVUSD’s facilities exceeds student enrollment at all school levels for school year 2021–2022. Therefore, 2,627 elementary school seats, 1,410 intermediate school seats, and 2,313 high school seats are available to house students generated from the residential units.

4.8.3.4 Parks

Section 4.9, Recreation, provided later in this PEIR, contains a detailed discussion related to parks and recreational facilities located within Laguna Woods. The City maintains and operates three public parks, including an area for resource preservation, within the City. Local open spaces that are used for recreational and resource preservation uses comprise approximately 226 acres. According to the Laguna Woods Municipal Code, the City determines the need for park space based on its population. The City requires 2.5 acres of park space per 1,000 residents.

4.8.3.5 Public Libraries

The Orange County Public Library (OCPL) system provides library services to Orange County, including the City of Laguna Woods. The OCPL system includes 32 branches, one of which is located in Laguna Woods. The Laguna Woods Library is located at 24266 El Toro Road. The City opened the building housing the Laguna Woods Library in January 2024.

The City's General Plan does not provide a ratio for library space per capita. However, the Public Services and Facilities Element of the Orange County General Plan denotes a standard of 0.2 square feet (sf) of library space per capita which has been accepted by the Orange County Board of Supervisors as a planning guide for the purpose of projecting the number and location of new libraries needed.

4.8.3.6 Public Transportation

The proposed Project is within the Orange County Transportation Agency (OCTA) bus service area. OCTA connects Laguna Woods with surrounding cities and regional transit service. OCTA also provides paratransit service through its ACCESS Service. This shared-ride paratransit service serves areas within 0.75 mile of an OCTA fixed route service.

OCTA currently maintains 3 bus routes: Route 83, Route 89, and Route 90, that each run through Laguna Woods. Route 83 provides 35 weekday trips per day, 33 Saturday trips, and 26 Sunday and holiday trips (OCTA 2022a). Route 89 provides 22 weekday trips per day and 14 weekend trips (OCTA 2022b). Route 90 provides 22 weekday trips per day, 12 Saturday trips, and 10 Sunday and holiday trips (OCTA 2022c).

4.8.4 Regulatory Setting

4.8.4.1 Federal Regulations

There are no federal policies or regulations applicable to public services for the proposed Project.

4.8.4.2 State Regulations

Assembly Bills 2926, 1600, and 2751. To assist in providing facilities to serve students generated from new development projects, the State enacted Assembly Bill (AB) 2926 in 1986, which allows school districts to collect impact fees from developers of new residential, commercial, and industrial developments. Development impact fees are also referenced in the 1987 Leroy Greene Lease-Purchase Act, which requires school districts to contribute a matching share of the costs for the construction, modernization, or reconstruction of school facilities. Subsequent legislation has modified the fee structure and general guidelines. In 1987, the provisions of AB 2926 have been expanded and revised by AB 1600, which limits the ability of a school district to levy school fees unless (i) there is a need for the School Fee revenues generated, and (ii) there is a nexus or relationship between the need for School Fee revenues and the type of development project on which the School Fee is imposed.²

Senate Bill 50 and California Education Code Section 17620. Senate Bill (SB) 50, the Leroy F. Greene School Facilities Act of 1998, was signed into law on August 27, 1998. It is a program for funding school facilities largely based on matching funds. The approval of Proposition 1A authorized funds for SB 50 in the amount of \$9.2 billion, including grants for construction of new schools and modernization of existing schools. The new construction grant provides funding on a 50/50 State and local match basis. The modernization grant provides funding on a 60/40 State and local match

² The requirements of AB 1600 were clarified with the passage in 2006 of AB 2751, which codifies the findings of *Shapell Industries vs. Milpitas Unified School District*.

basis. Districts that are unable to provide some or all of the local match requirements and are able to meet financial hardship provisions may be eligible for additional State funding.³ SB 50 (codified as California Education Code Section 17620) allows the SVUSD to levy a fee, charge, dedication, or other requirement against any development project within its boundaries for the purpose of funding the construction or reconstruction of school facilities. The maximum fee amount that school districts can assess is limited by statutes provided in California Government Code Section 65995. The SVUSD collects the maximum new school construction facility fee at a rate of \$4.79 per square foot of new residential construction.⁴

The payment of these fees by a developer serves to mitigate all potential impacts on school facilities that may result from implementation of a project to levels that are less than significant (see California Government Code Section 65996). Stated another way, the provisions of SB 50 provide full and complete mitigation of school facilities impacts, notwithstanding any contrary provisions in the California Environmental Quality Act (CEQA) or other State or local laws. The California Department of Education permits local school districts to increase facility fees subject to Department of Education review and with approval of a nexus study from the school district that demonstrates that costs incurred by the school district for the provision of school facilities and services are higher than Level 1 funding provides. In such an instance, a nexus must be demonstrated in the study between the increase proposed by the local school district and the actual cost of provision of school facilities and services.

California Building Code Title 24. Title 24 of the California Code of Regulations, also known as the California Building Code (CBC or Title 24), contains the design standards that govern the construction of buildings in California to “safeguard life or limb, health, property, and public welfare by regulation and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures and certain equipment.” The 2022 edition of the CBC contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. The Triennial 2022 CBC edition became effective January 1, 2023, and is composed of 12 parts. Part 2 of the CBC outlines building design and construction requirements relating to fire, life safety, and structural safety.

California Fire Code. The California Fire Code (CFC) includes regulations for emergency planning, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Several fire safety requirements include installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

Office of Emergency Services. The State of California passed legislation authorizing the Office of Emergency Services to prepare a Standard Emergency Management System (SEMS) program, which

³ State of California. 2007. *Office of Public School Construction, School Facility Program Handbook*, April.

⁴ Saddleback Valley Unified School District (SVUSD). 2022a. Adjustment in Developer Fees. Effective July 6, 2022. Website: https://www.svusd.org/uploaded/SVUSD_Department_Files/Facilities/Developer_Fee/Developer_Fees_Level_1_Notification_Memo_Levied_June_6,_2022_ADA.pdf (accessed October 19, 2022).

sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

4.8.4.3 Regional Regulations

There are no regional policies or regulations applicable to public services for the proposed Project.

4.8.4.4 Local Regulations

City of Laguna Woods Municipal Code. The City of Laguna Woods Municipal Code includes the following requirements that would apply to the proposed Project related to the provision of public services:

- **Chapter 10.12** adopts the 2022 CFC.
- **Chapter 10.08** adopts the 2022 CBC.
- **Section 12.12.210** discusses the requirements for subdivisions in high or extremely high hazard areas including providing appropriate fire protection by means of fire breaks, fuel modification programs, access roads, sufficient water supply, landscaping, and open spaces.
- **Chapter 11.06** adopts the Local Park Code pursuant to Government Code Section 66477 to set rules for construction, uses for land and fees, and identify the general purposes and objectives of parks in the City.

City of Laguna Woods General Plan Safety Element. The primary purpose of the Safety Element is to identify priority public safety issues in Laguna Woods and set forth long-range City policies and programs to protect people and properties from harm resulting from natural and human-caused hazards and criminal activity. The following policies are relevant to public services:

- **Policy S-1.3:** Provide the highest level of fire services as are available and fiscally feasible.
- **Policy S-5.3:** Increase and maintain the security, reliability, continuity, and functionality of critical City facilities.

City of Laguna Woods General Plan Open Space Element. The Open Space Element provides for maintenance of lands for scenic beauty and wildlife habitat. The Open Space Element contains policies and programs that provide guidance that allows the City to meet the open space and recreation needs of the community. The following policies are relevant to public services:

- **Objective I:** Provide access to recreational opportunities for the unique population of the City of Laguna Woods.

4.8.5 Thresholds of Significance

The thresholds for public services impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to public services if it would:

Threshold 4.8.1(i): 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 fire protection.

Threshold 4.8.1(ii): 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 police protection.

Threshold 4.8.1(iii): 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 schools.

Threshold 4.8.1(iv): 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 parks.

Threshold 4.8.1(v): 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 other public facilities.

4.8.6 Project Impacts

Threshold 4.8.1(i): **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?**

Less Than Significant Impact. The proposed Project includes the adoption of residential zoning overlays that would allow for residential development on the Potential Housing Sites. The proposed Project also includes administrative changes on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses that are intended to ensure the land use designations and zoning reflect existing conditions. As such, these minor administrative changes would not impact the provision of any public services.

The City's housing needs allocation for the planning period between October 2021 and October 2029 was established by the Southern California Association of Governments (SCAG) at 997 units. The zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites. According to the 2017 American Housing Survey (AHS), the average household size in structures that have 50 or more housing units (the highest housing density type evaluated in the AHS) in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area (MSA) was 1.99 persons. Because most of the proposed zoning overlays would allow for higher density housing, 1.99 persons per household was deemed appropriate for use in the analysis contained in this PEIR. Therefore, the additional 1,196 housing units that would potentially be built in the City would result in an increase in 2,382 residents. The 2022 OCFA Adopted Budget states that it served a population of 1,891,414 in 2021 and it had 1,151 authorized firefighter positions. The addition of 2,382 residents would increase the population served to 1,893,796. The ratio of firefighters per 10,000 residents would therefore decrease from 6.09 firefighters per 10,000 residents to 6.08 firefighters per 10,000 residents. This decrease in number of firefighters to 10,000 residents is negligible, and would not impact OCFA's ability to serve the City.

Any future projects implemented in accordance with the proposed zoning overlays would be required to adhere to all OCFA requirements, including providing adequate fire flow/structure protection to the future development sites and providing adequate access for emergency vehicles. Any future development projects would be required to obtain City approval of building plans prior to issuance of building permits and would be required to demonstrate during the development review process that fire service providers would be able to provide adequate fire protection through building design requirements and access. Additionally, each of the Potential Housing Sites are surrounded by existing development and would replace existing non-residential land uses; therefore, the Potential Housing Sites are located in areas of the City already served by OCFA. The City proposes to update its General Plan Circulation, Land Use, and Noise Elements and rename the Circulation Element to the Mobility Element in order for the individual elements of the General Plan to be internally consistent. The proposed Project includes text changes in the Land Use Element. These text changes are necessary to provide internal consistency between General Plan elements and would not facilitate or entitle any physical development. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development.

The Project includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. As mentioned earlier, the City is substantially built-out and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network. Thus, any population growth associated with the Project that would lead to potential strains on public services would not be substantial because it would be located within an area capable of supporting it; impacts would be less than significant, and no mitigation measures would be required.

Threshold 4.8.1(ii): 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 police protection?

Less Than Significant Impact. The City contracts with the OCSD for law enforcement services. The OCSD’s Southwest Operations Division provides law enforcement services to the City. The development of new housing on the Potential Housing Sites may result in an incremental increase in law enforcement calls within the City; however, such calls would be generally consistent with the types of calls the OCSD responds to at similar residential developments in the City. Additionally, each of the Potential Housing Sites is surrounded by existing development and therefore located in areas of the City that are already patrolled by the OCSD. Any future projects implemented in accordance with the proposed zoning overlays would be required to adhere to all applicable policies and codes related to the provision of police services. Additionally, any new housing units built within the residential zoning overlays would replace existing land uses already receiving services from OCSD.

The City proposes to update its General Plan Circulation, Land Use, and Noise Elements and rename the Circulation Element to the Mobility Element in order for the individual elements of the General Plan to be internally consistent. The proposed Project includes text changes in the Land Use Element. These text changes are necessary to provide internal consistency between General Plan elements and would not facilitate or entitle any physical development. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development.

The Project includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements.

“Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. As mentioned earlier, the City is substantially built-out and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network. Thus, any population growth associated with the Project that would lead to potential strains on public services would not be substantial because it would be located within an area capable of supporting it; impacts would be less than significant, and no mitigation measures would be required.

Threshold 4.8.1(iii): 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 schools?

Less Than Significant Impact. As indicated above, the provision of education and school facilities in Laguna Woods is the responsibility of the SVUSD, LBUUSD, and CUSD. Because all of the Potential Housing Sites are located within the SVUSD, analysis regarding student generation will only consider the SVUSD and not the LBUUSD or CUSD. The SVUSD has a capacity of 30,598 students as of the 2021–2022 school year and includes all or part of Laguna Woods, Aliso Viejo, Irvine, Laguna Beach, Laguna Hills, Laguna Niguel, Lake Forest, Mission Viejo, and Rancho Santa Margarita (SVUSD 2022b).

The demand for public school facilities is driven by residential land use. Because the proposed Project includes the adoption of residential zoning overlays that may indirectly lead to an increase in growth and population, the Project could potentially create a demand on public school facilities. As described above, construction of the 1,196 potential housing units that would be accommodated by the zoning overlays that are proposed as a part of the Project would result in approximately 2,382 additional residents. As shown in Table 4.8.B below, the proposed Project has the potential to generate 257 elementary school students, 74 intermediate school students, and 149 high school students. Based on the SVUSD’s available enrollment capacity, the development of 1,196 housing units on the Potential Housing Sites in Laguna Woods would not result in the need to construct new school facilities.

Pursuant to California Government Code Section 17620, the governing board of SVUSD is authorized to levy a fee, charge, dedication, or other requirement against the proposed Project, which lies within the boundaries of the SVUSD, for the purpose of funding the construction or reconstruction of school facilities to accommodate future student enrollment. Therefore, with payment of these school impact fees, impacts related to student generation and the potential need for additional school facilities would be less than significant, and no mitigation is required.

Table 4.8.B: Student Generation and SVUSD Capacity

School Level	Student Generation Factor (per Housing Unit) ¹	Estimated Project-Related Student Generation	Available Enrollment Capacity ²	Capacity Available?
Elementary School	0.2150	257	2,627	Yes
Intermediate School	0.0634	76	1,410	Yes
High School	0.1127	135	2,313	Yes
Total	0.3911	468	6,350	

¹ Source: *Residential and Commercial/Industrial Development School Fee Justification Study*. Table 14 - Student Generation Factors. (SVUSD 2022b).

² Source: *Residential and Commercial/Industrial Development School Fee Justification Study*. Table 1 – Existing School Facilities Capacity and Student Enrollment.

SVUSD = Saddleback Valley Unified School District

The proposed Project also includes land use designation and zoning changes on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. Inasmuch as these minor administrative changes are intended to ensure that the land use designations and zoning reflect existing conditions, they would not impact the provision of any public services.

The City proposes to update its General Plan Circulation, Land Use, and Noise Elements and rename the Circulation Element to the Mobility Element in order for the individual elements of the General Plan to be internally consistent. The proposed Project includes text changes in the Land Use Element. These text changes are necessary to provide internal consistency between General Plan elements and would not facilitate or entitle any physical development. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development.

The Project also includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. As mentioned earlier, the City is substantially built-out and the Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network. Therefore, the proposed Project would have a less than significant impact related to demand for school facilities. No mitigation is required.

Threshold 4.8.1(iv): 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 parks?

Less Than Significant Impact. The City determines the need for park space based on its population. Chapter 11.06 of the City's Municipal Code establishes a standard of 2.5 acres of land per 1,000 residents for park and recreational purposes. As of the time this PEIR was prepared, the City currently has a parkland-to-resident ratio of 12.9 acres for each 1,000 residents, which is well in excess of its adopted standard. As described above, the proposed residential zoning overlays would allow for the future development of up to 1,196 housing units on the Potential Housing Sites, potentially resulting in approximately 2,382 additional residents. Even with the addition of 2,382 new residents, the City would have sufficient park resources to meet its adopted standard of 2.5 acres of park and recreational land for each 1,000 residents. Therefore, the proposed Project would not require the construction or expansion of any parks or recreational facilities.

Text changes to the Circulation Element, Land Use Element, and Noise Element, as well as the renaming of the Circulation Element to the Mobility Element, would not facilitate or entitle any physical development that would result in impacts to parks. The minor administrative changes in the zoning and land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. Therefore, those zoning and land use designation changes would not result in additional population, alter existing parks, or require the construction or expansion of parks. The proposed Project would result in less than significant impacts related to parks. No mitigation is required.

Threshold 4.8.1(v): 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 other public facilities?

Less Than Significant Impact. Other public facilities in the City include the Laguna Woods Branch of the OC Public Library. As indicated above, the proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites. The zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units. As discussed in Section 4.13, Population and Housing, the RHNA for the City accounts for 997 additional housing units, and the proposed zoning overlays would accommodate the construction of 1,196 housing units, which is estimated to result in an increase of 2,382 residents. Because the proposed Project includes General Plan and zoning updates that may indirectly lead to an increase in growth and population, the Project could potentially create a demand on public library facilities within Laguna Woods or Orange County. Any future projects

implemented in accordance with the proposed zoning overlays would be required to adhere to the General Plan, provide required development impact fees, and comply with applicable development regulations. Additionally, according to Section 11.04.010 of the City's Municipal Code, payment of fees would be required by developers to offset impacts to public services and City infrastructure created by the proposed Project. Ultimately, as part of the development review process, all future projects would be required to demonstrate during the development review process that service providers would ensure adequate public services. The minor administrative changes in the zoning and land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. Therefore, those zoning and land use designation changes would not impact the provision of any public services.

The City proposes to update its General Plan Circulation, Land Use, and Noise Elements and rename the Circulation Element to the Mobility Element in order for the individual elements of the General Plan to be internally consistent. The proposed Project includes text changes in the Land Use Element. These text changes are necessary to provide internal consistency between General Plan elements and would not facilitate or entitle any physical development. The proposed Project also includes text changes to the Noise Element to update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development.

The Project also includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. "Mobility" is purposefully used in this element's title to emphasize the City's commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines "users of streets, roads, and highways" as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. As mentioned earlier, the City is substantially built-out and the Mobility Element focuses on maintaining and coordinating the City's balanced multi-modal transportation network. Additionally, the Potential Housing Sites are located in existing urbanized locations with existing land uses that are already receiving public services. Redevelopment of existing land uses reduces the net impact to public services to a less than significant level. Thus, any population growth associated with the Project that would lead to potential strains on public services would not be substantial because it would be located within an area capable of supporting it; impacts would be less than significant, and no mitigation measures would be required.

4.8.7 Level of Significance Prior to Mitigation

The proposed Project would not result in potentially significant impacts related to public services.

4.8.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are applicable to the proposed Project pertaining to public services.

4.8.9 Cumulative Impacts

The purpose of this section is to evaluate any additional incremental impact that the proposed Project is likely to cause over and above the combined impacts of recently approved and proposed projects in Laguna Woods. The impact area used to assess potential cumulative population and housing impacts is the City of Laguna Woods because the proposed Project would affect public services within Laguna Woods. The City has not seen any new housing development since completion of the San Sebastian development project in 2008. Therefore, the cumulative impacts associated with the proposed Project would only consider impacts from implementation of the proposed Project that would contribute to population and housing growth leading to an impact on public services in the Project vicinity.

The proposed Project would result in a negligible difference in the ratio of firefighters per 10,000 residents from the existing conditions, would not propose any new development that would require a substantial increase in police presence, and would also adhere to all applicable policies and codes related to the provision of firefighting and police services including OCFA requirements related to providing adequate fire flow/structure protection to the future development sites and providing adequate access for emergency vehicles. Although the City has adopted a standard of 2.5 acres of land per 1,000 residents for park and recreational purposes, the City currently has a parkland-to-resident ratio of 12.9 acres for each 1,000 residents and is no longer collecting parkland dedication fees. Even with the addition of 2,382 new residents, the City would have sufficient park resources to meet its adopted standard of 2.5 acres of park and recreational land for each 1,000 residents. Therefore, the proposed Project would not require the construction or expansion of any parks or recreational facilities. The potential development of 1,196 housing units is accounted for in the SVUSD projections for future housing development within the SVUSD. Any population growth associated with the Project that would lead to potential strains on public services would not be substantial because it would be located within an area capable of supporting it. As discussed above, the minor administrative changes in the zoning and land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. Therefore, those zoning and land use designation changes would not impact the provision of any public services. Therefore, the impacts from the proposed Project are not considered to be cumulatively considerable.

4.8.10 Level of Significance After Mitigation

The proposed Project would not result in potentially significant impacts related to public services, and mitigation measures are not required.

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4.9 RECREATION

4.9.1 Introduction

This section describes the parks and other recreational facilities in the City of Laguna Woods (City) and evaluates the potential impacts of the proposed Laguna Woods General Plan and Zoning Update (proposed Project) on those facilities. This section also discusses the existing setting of recreational facilities within and near Laguna Woods and sets forth the relevant regulatory requirements that apply to the analysis of the proposed Project's impact on recreational facilities. This section is based, in part, on information provided in the Open Space Element of the City of Laguna Woods General Plan and applicable provisions of the City's Municipal Code.

4.9.1.1 Scoping Process

The City received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). One comment letter included a comment related to Recreation.

The letter from the California Department of Fish and Wildlife (CDFW) (August 30, 2022) recommended that open space be maximized when planning for future housing projects.

4.9.2 Methodology

Recreation impacts are assessed based on the physical effects of the proposed Project on existing recreational facilities in the area. Specifically, impacts on recreational facilities are assessed based on the potential for the proposed Project to generate increased demand on recreational facilities that could result in deterioration of, or contribute toward substantial accelerated deterioration of, those facilities or require the construction of new facilities or expansion of existing facilities that could have an adverse physical effect on the environment. For the purposes of this analysis, "recreational facilities" are defined as parks and designated public areas used for active or passive recreation. The City's Municipal Code contains requirements for the dedication of land or the payment of in-lieu fees for recreational purposes in connection with residential development projects, based on a standard of 2.5 acres of park and recreational land for each 1,000 residents. The City was nearly built out at the time of its incorporation in 1999. Prior to incorporation, development proceeded pursuant to the County's Rossmoor Leisure World Planned Community zoning designation. Recreational facilities were developed for the exclusive use of residents within the Leisure World (now Laguna Woods Village) gated community. The vast majority of dwelling units in the City are located inside the Laguna Woods Village gates. Future residents of any housing units built on the Potential Housing Sites would be located outside Laguna Woods Village. As such, those future residents would not have access to the private recreational facilities located within Laguna Woods Village. Consequently, the analysis in this chapter will focus on those recreational and open space features within the City which are outside of Laguna Woods Village.

4.9.3 Existing Environmental Setting

The City is bounded on the northwest by Laguna Coast Wilderness Park and State Route 133 (SR-133) and on the northeast by Interstate 5 (I-5). State Route 73 (SR-73) is near the City's southern boundary. Additionally, the City is bordered on the north and southeast by the City of Laguna Hills,

the City of Aliso Viejo on the south, the City of Laguna Beach and unincorporated Orange County on the west, and the City of Irvine on the northwest.

4.9.3.1 Existing Recreational and Open Space Facilities within the City

The City provides recreational opportunities outside of the Laguna Woods Village gated community, which houses a majority of its residents. Table 4.9.A, below, provides an inventory of the City’s public recreation and non-public owned open space resources.

Table 4.9.A: Existing Public Recreational/Open Space Facilities in Laguna Woods

Local Open Space for Recreational/Resource Preservation	
Southern California Edison Right-of-Way	45
Woods End Wilderness Preserve (Public Park)	10
Laguna Laurel Property	171
City Centre Park (Public Park)	0.54

Source: City of Laguna Woods. 2007. General Plan Land Use Element. Website: <https://www.cityoflaguna.org/wp-content/uploads/2017/09/08-2017-General-Plan-Land-Use-Element-Final.pdf> (accessed September 21, 2022).

Public parks within the City include a 12,000-square-foot dog park which was developed after the City became incorporated. The dog park, however, is located on a portion of the right-of-way reserved for a potential future widening of Ridge Route Drive and, therefore, cannot be considered permanent open space.

City Centre Park, which is located along Moulton Parkway just north of El Toro Road, includes a walking trail, picnic tables, and small gathering spaces. The 178-acre Laguna Laurel property in the northwest corner of the City serves as an important open space resource. Laguna Laurel is owned by the Irvine Company and is subject to an irrevocable open space easement that was granted to The Nature Conservancy in 2001.

Woods End Wilderness Preserve is a 10.6-acre public park in the southwest corner of the City. Woods End acts as a trailhead to the Laguna Coast Wilderness Park with a pedestrian and cycling trail winding through coastal sage scrub habitat.

The Southern California Edison (SCE) right-of-way easement area borders Woods End Wilderness Preserve and extends for 1.1 mile along the southwestern edge of Laguna Woods. The SCE easement area is located generally east of the Laguna Coast Wilderness Park.

Figure 4.9-1 provides the locations of the City’s existing public parks and recreation facilities.



FIGURE 4.9.1

LSA

LEGEND

City of Laguna Woods

Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses

Potential Housing Sites

Recreation Areas

Aliso & Wood Canyons Wilderness Park

Laguna Coast Wilderness Park

Woods End Wilderness Preserve

City Centre Park

Laguna Laurel Property

Laguna Woods Dog Park

SCE Right of Way Easement Area



SOURCE: Google Maps (2021); City of Laguna Woods (2022)

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4.9.3.2 Existing Regional Recreational Opportunities

Regional public park facilities serving the City include Laguna Coast Wilderness Park, which adjoins the westerly boundary of the City and encompasses the City's Woods End Wilderness Preserve. Hiking, bicycling, and horseback riding trails traverse the park which is itself a portion of the Laguna Greenbelt that extends through the San Joaquin Hills along Laguna Canyon Road.

Aliso and Wood Canyons Wilderness Park is located south of the City. This large open space reserve extends south to Aliso Beach in Laguna Beach. Trails provide access through the park to other regional recreational facilities.

4.9.4 Regulatory Setting

4.9.4.1 Federal Regulations

Americans with Disabilities Act. The Americans with Disabilities Act (ADA) of 1990 (42 United States Code [USC] 12181) prohibits discrimination on the basis of disability in public accommodation and State and local government services. Under the ADA, the Architectural and Transportation Barriers Compliance Board issues guidelines to ensure that facilities, public sidewalks, and street crossings are accessible to individuals with disabilities. Play areas, meeting rooms, park restrooms, and other buildings and park structures must comply with ADA requirements. Any public park facilities that would be developed as part of the proposed Project would be required to be ADA compliant.

4.9.4.2 State Regulations

Quimby Act of 1975. The Quimby Act (California Government Code Section 66477) allows the legislative body of a city or county to require by ordinance the dedication of land, the payment of an in-lieu park fee, or a combination thereof for the approval for a final tract or parcel map. In cases where such a dedication or park fee is not obtained through a map, it may be imposed when building permits are issued. The following conditions must be met to comply with the Quimby Act:

- The city or county ordinance must include definitive standards for determining the proportion of a subdivision to be dedicated and the amount of any fee to be paid in lieu thereof.
- The legislative body must adopt a general plan containing a recreation element, and any proposed park or recreational facility must be consistent with the principles and standards established in the element.

Although the City has adopted a parkland dedication ordinance pursuant to the Quimby Act, as described in the City's General Plan Housing Element, the City no longer collects parkland dedication fees as it currently has 226.54 of public open space and parkland for its approximately 17,500 residents (approximately 12.9 acres of park and recreational land per 1,000 residents), which is well in excess of the City's own adopted standard of 2.5 acres of park and recreational land for each 1,000 residents.

4.9.4.3 Local Regulations

City of Laguna Woods Municipal Code. The following sections of Chapter 11.06, Local Park Code, of the City's Municipal Code are applicable to the proposed Project:

- **Section 11.06.160, Amount of Parkland Required**, describes the amount of parkland to be provided according to the number of proposed dwelling units.
- **Section 11.06.170, Amount of Park Fees Required**, establishes that the amount of park fees that needs to be paid for instances where the payment of park fees is necessary.
- **Section 11.06.190, Amount of Parkland and Park Fees Combined**, describes the computations for instances where both the provision of parkland and payment of park fees are required.
- **Section 11.06.210, Parkland Requirements**, describes the requirements and conditions for compliance that must be met for any person that intends to provide parkland.
- **Section 11.06.220, Park Fee Procedures**, establishes the procedures for establishing the amount that must be paid for a park fee.

City of Laguna Woods General Plan Open Space. The Open Space Element of the City's General Plan describes existing park and recreational facilities within Laguna Woods, summarizes issues, opportunities, and constraints that the City faces in providing adequate recreational facilities to its residents, and provides objectives, policies, and implementation measures that can be used to orient the City's actions to enhance open space and recreational opportunities in the City.

The following objectives and policies in the Open Space Element apply to the proposed Project:

- **Objective 1:** Provide access to recreational opportunities for the unique population of the City of Laguna Woods.
- **Objective II:** Include recreation and open space needs of the community in planning for development of currently undeveloped properties.

4.9.5 Thresholds of Significance

The thresholds for recreation impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to recreation if it would do the following:

Threshold 4.9.1: 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.

Threshold 4.9.2: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.9.6 Project Impacts

Threshold 4.9.1: **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 proposed Project includes proposed zoning overlays that would allow for housing development to occur on the Potential Housing Sites. Although the proposed zoning overlays would not directly result in physical development, it would make possible new residential development that could potentially lead to impacts to existing parks or recreational facilities. Any future projects that are implemented in accordance with the proposed zoning overlays would be required to adhere to the General Plan, the City of Laguna Woods Municipal Code, and all applicable development regulations pertaining to the capacity of existing neighborhood and regional parks or other recreational facilities. The changes to the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. The land use designation changes and rezoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses would not result in additional population or alter existing recreational uses.

The zoning overlays that are proposed as a part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites. According to the 2017 American Housing Survey (AHS), the average household size in structures that have 50 or more housing units (the highest housing density type evaluated in the AHS) in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area (MSA) was 1.99 persons. Because most of the proposed zoning overlays would allow for higher density housing, 1.99 persons per household was deemed appropriate for use in the analysis contained in this PEIR. Therefore, the additional 1,196 housing units that would potentially be built in the City are estimated to result in an increase in 2,380 residents. Chapter 11.06 of the City's Municipal Code establishes a standard of 2.5 acres of land per 1,000 residents for park and recreational purposes. Therefore, to accommodate for the demand for new park space for these 2,380 residents, 5.95 additional acres of parks and recreation land would be necessary to meet the requirements set forth in Chapter 11.06 of the City's Municipal Code. Laguna Woods began as a retirement community with the development of Leisure World (now known as Laguna Woods Village) in the 1960s. The City is unique in that nearly all of its existing residential uses are age-restricted for adults aged 55 years and older. Of the 13,386 dwelling units in the City of Laguna Woods, 12,736 are located in the gated community of Laguna Woods Village, which represents 80 percent of the City's total land area. Four other residential communities (Ivy Park at Laguna Woods [formerly The Regency], Ivy Park at Wellington [formerly Las Palmas], San Sebastian, and Whispering Fountains) provide an additional 650 dwelling units in the City. Ivy Park at Laguna Woods and Ivy Park at Wellington are assisted living facilities which generate minimal recreational demand. San Sebastian, a 55-plus senior living apartment complex, includes a swimming pool and numerous outdoor spaces that meet the recreational needs of residents. Whispering Fountains is also a senior living apartment complex with access to a landscaped courtyard.

The vast majority of city residents reside within Laguna Woods Village. The recreational facilities in Laguna Woods Village are private and for the use of Laguna Woods Village residents. The private recreational facilities are abundant including multiple clubhouses with swimming pools, golf courses, tennis center, equestrian center, garden center and extensive pedestrian network. Removing Laguna Woods Village from the parkland dedication requirement due to village recreational amenities fulfilling resident recreational needs equates to 650 units (the majority

assisted living) or 1,293 residents (1.99 residents per unit) resulting in a 3.23-acre park requirement. Assuming 1.99 residents per unit for assisted living or senior living facilities is a conservative estimate given that many units are single occupant.

The proposed Project also includes text changes to the Circulation, Noise, and Land Use Elements to update the noise contour maps and provide internal consistency between General Plan Elements. The Project includes renaming the General Plan Circulation Element to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

The Circulation, Land Use, and Noise Elements updates, and the renaming of the Circulation Element to the Mobility Element, would not result in changes to the physical environment nor result in impacts to recreation resources. The provision of additional housing units would result in additional demands on existing recreational resources. However, as discussed above, existing public park and recreational facilities would not be adversely impacted or be substantially degraded by the Project’s additional residents, and impacts related to recreation resources would be less than significant. No mitigation is required.

Threshold 4.9.2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. As discussed above, Chapter 11.06 of the City’s Municipal Code establishes a standard of 2.5 acres of land per 1,000 residents for park and recreational purposes; however, the City currently has 10.54 acres of city owned parkland outside of Laguna Woods Village providing a parkland-to-resident ratio of 8.1 acres for each 1,000 residents (residents outside of Laguna Woods Village) and is no longer collecting parkland dedication fees under its Quimby Act ordinance. Even with the addition of 2,382 new residents, the City would have sufficient park resources to meet its adopted standard of 2.5 acres of park and recreational land for each 1,000 residents. Therefore, the proposed Project would not require the construction or expansion of any parks or recreational facilities. Text changes to the Circulation Element, Land Use Element, and Noise Element, and renaming the Circulation Element to the Mobility Element, would not facilitate or entitle any physical development that would result in impacts to recreation. The minor administrative changes in the zoning and land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. Therefore, those zoning and land use designation changes would not result in additional population, alter existing recreational uses, or require the construction or expansion of recreational facilities.

The proposed Project would result in less than significant impacts to recreational facilities. No mitigation is required.

4.9.7 Level of Significance Prior to Mitigation

The proposed Project would result in less than significant impacts related to recreation.

4.9.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are applicable to the proposed Project pertaining to recreation.

4.9.9 Cumulative Impacts

The purpose of this section is to evaluate any additional incremental impact that the proposed Project is likely to cause over and above the combined impacts of recently approved and proposed projects in Laguna Woods. The impact area used to assess potential cumulative recreational impacts is Laguna Woods because the proposed Project would affect recreational facilities within Laguna Woods. The City has not seen any new housing development since completion of the San Sebastian development project in 2008. Therefore, the cumulative impacts associated with the proposed Project would only consider impacts from implementation of the proposed Project which would not contribute to recreational impacts in the Project vicinity. As discussed above, the minor administrative changes in the zoning and land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are intended to reflect the reality that these properties are currently being used as open space or community facilities and would continue to be used for those purposes for the foreseeable future. Therefore, those zoning and land use designation changes would not result in any cumulative impacts to recreational facilities.

Although Chapter 11.06 of the City's Municipal Code establishes a standard of 2.5 acres of land per 1,000 residents for park and recreational purposes, the City currently has a parkland-to-resident ratio of 8.1 acres for each 1,000 residents (outside of Laguna Woods Village) and is no longer collecting parkland dedication fees under its Quimby Act ordinance. Even with the addition of 2,382 new residents, the City would have sufficient park resources to meet its adopted standard of 2.5 acres of park and recreational land for each 1,000 residents. Therefore, the proposed Project would not require the construction or expansion of any parks or recreational facilities, and impacts from the proposed Project would not be considered cumulatively considerable.

4.9.10 Level of Significance After Mitigation

No mitigation is required. The proposed Project would not result in potentially significant impacts related to recreation.

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4.10 TRANSPORTATION

4.10.1 Introduction

This section analyzes the scoping process, the methodology, and findings of the Vehicle Miles Traveled (VMT) analysis for the City of Laguna Woods' (City) General Plan and Zoning Code Update Project (Project).

4.10.1.1 Scoping Process

The City received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). Three comment letters included comments related to Transportation.

The comment letter from the California Department of Transportation (Caltrans) District 12, dated August 30, 2022, addressed several topics. Caltrans identified support for projects which provide a diversity of housing choices and destinations accessible by active transportation (i.e., bicycle and pedestrian) and transit users. Caltrans noted that increased density can result in traffic impacts and suggested that the City consider encouraging multimodal transportation and mode shifts through the planning and implementation of high-quality Complete Streets that are safe and accessible for people of all ages and abilities. Caltrans suggested consideration of a discussion about wayfinding signage to transit stops within the project vicinity and local roadways. Safety was identified as one of Caltrans' strategic goals. Caltrans encourages the implementation of new technologies, innovations, and best practices that will enhance safety on the transportation network. Caltrans requested consideration of a discussion on potential impacts to the Circulation Element from freight traveling into, from, and/or through the City, as a result of the General Plan updates. Caltrans emphasized that new development resulting from the City's Housing Element update should provide a Vehicle Miles Traveled (VMT) based Traffic Impact Study (TIS).

The comment letter from the Orange County Transportation Authority (OCTA), dated August 29, 2022, requested that OCTA be kept apprised of the Project and requested continued coordination with OCTA to maintain consistency between the Circulation Element and the Orange County Master Plan of Arterial Highways.

The comment letter from the Southern California Association of Governments (SCAG), dated August 15, 2022, emphasized that pursuant to Senate Bill (SB) 375, SCAG is the designated Regional Transportation Planning Agency under State law and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS). SCAG's feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) goals and align with RTP/SCS policies. Finally, SCAG is the authorized regional agency for Intergovernmental Review (IGR) of programs proposed for federal financial assistance and direct federal development activities, pursuant to Presidential Executive Order 12372. The SCAG letter acknowledged the Project's purpose and requested that the PEIR be shared with SCAG when it is ready for public review. SCAG suggested that the PEIR evaluate the proposed Project's consistency with relevant goals in the RTP/SCS and provided a list of the RTP/SCS goals for the City's consideration. SCAG also provided the long-term population, household, and employment growth forecasts for the City and the entire SCAG region from 2020 through 2045 and recommended that

the City review the Final Program EIR prepared for the 2020 RTP/SCS to determine if any of the project-level mitigation measures included in that document should be incorporated into this PEIR. Lastly, SCAG identified the City's 6th Cycle Final Regional Housing Needs Assessment (RHNA) allocation and shared a link to a web-mapping tool developed by SCAG to help cities and stakeholders understand local land use, site opportunities, and environmental sensitivities.

4.10.2 Methodology

On December 28, 2018, the California Office of Administrative Law cleared the revised *State of California Environmental Quality Act (CEQA) Guidelines* for use. Among the changes to the guidelines was removal of vehicle delay and level of service analysis from consideration under CEQA. With the adopted guidelines, transportation impacts are now to be evaluated based on project-generated VMT.

The City has not adopted specific SB 743 guidelines and therefore, this VMT analysis was conducted using the methodologies and significance threshold criteria identified in the California Governor's Office of Planning and Research's (OPR) *Technical Advisory On Evaluating Transportation Impacts in CEQA* (Technical Advisory), dated December 2018. Given that the proposed Project involves a General Plan update and updates to the City's Zoning Code, it can be considered a land use plan. For land use plans, the OPR Technical Advisory recommends comparison of Project VMT per capita or VMT per employee under the forecasted/cumulative scenario to the corresponding base year VMT per capita/employee to determine the Project impacts. If the forecasted VMT per capita/employee is greater than 85 percent of the existing regional VMT per capita/employee, then the Project would result in a significant impact.

Per the OPR Technical Advisory, a region should be defined based on where the majority of a project's trips are contained. As such, a majority of the project trips are estimated to start or end within the region defined for VMT analysis purposes. Typically, it is the county boundary within which the majority of those trips are contained. While the city boundary can also be considered as the region, based on the understanding of the local trip patterns in the area, which often cross over the boundaries of several cities in Orange County, the County is considered as the region for this VMT analysis. Therefore, if the forecasted citywide VMT per capita with inclusion of the proposed zoning overlays is greater than 85 percent of the existing countywide VMT per capita, the Project would result in a significant VMT impact.

The OPR Technical Advisory provides multiple screening criteria for land use projects. One of the screening criteria is a daily trip threshold. If a land use project generates less than 110 daily trips, it can be screened from a detailed VMT analysis. The proposed Project includes converting the existing uses on the Potential Housing Sites and replacing them with residential land uses. A trip generation analysis was conducted that looked at the differences in daily and peak hour trips between the existing and proposed land uses. That analysis is provided in Appendix C (City of Laguna Woods General Plan and Zoning Code Update-Vehicle Miles Traveled Analysis memorandum [LSA, October 25, 2022]). It was observed that while the proposed residential land uses would produce lower peak-hour trips than the existing land uses on the Potential Housing Sites, the Project would generate 746 more daily trips than the existing uses. As this would exceed the threshold of 110 daily trips, it was concluded that a detailed VMT analysis would be required to evaluate the Project's VMT impacts.

The Orange County Transportation Analysis Model (OCTAM) was used to determine the Project's VMT impacts. The proposed Project includes the adoption of zoning overlays on the Potential Housing Sites. Fifteen of the Potential Housing Sites include existing non-residential land uses on them, one site is vacant and one site is an existing parking lot.

For the Potential Housing Sites, the analysis assumes that the Project would remove the existing non-residential uses and replace them with residential uses. All 17 of the Potential Housing Sites are contained within four Traffic Analysis Zones (TAZs) in OCTAM. The updates to the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses are being proposed to ensure that the land use designations and zoning accurately reflect the existing uses on those properties and would not result in any additional traffic generation.

As the Project consists of modifications to the existing General Plan, a cursory review of current OCTAM forecasted data was conducted to verify the consistency of the model with the General Plan land uses. As OCTAM is a socioeconomic data-based model, in order to review the consistency, the General Plan land uses needed conversion to socioeconomic data (households and employment). The General Plan residential uses included density ranges whereas non-residential uses consisted of building square footage as development intensities. Average residential densities along with the residential acreage were used to convert the residential land uses into dwelling unit estimates. Similarly, general rule of thumb conversion factors were used to convert non-residential development intensities to employees.

The resulting household and total employment estimates were compared to the current OCTAM forecasted assumptions. While the dwelling unit/household estimates from the General Plan matched closely with current OCTAM forecasted data, the employment estimates varied significantly. Given the use of average densities for residential and general conversion factors for non-residential uses, a close match between General Plan land uses and OCTAM forecasted data was not expected.

In addition to the forecasted dataset, a review of model base year dataset and growth (forecast – base) was performed. It was observed that the model assumptions included minimal growth of households and employment for the City. Given the amount of growth assumed in the model, consistency of household estimates between the General Plan and the model, and use of generic assumptions to convert General Plan land uses to socioeconomic data, it was concluded that the forecasted OCTAM assumptions are consistent with the existing City General Plan.

4.10.3 Existing Environmental Setting

Laguna Woods began as a retirement community with the development of Leisure World (now known as Laguna Woods Village) in the 1960s. The City is unique in that nearly all of its existing residential uses are age-restricted for adults aged 55 years and older. Of the 13,386 dwelling units in the City of Laguna Woods, 12,736 are located in the gated community of Laguna Woods Village, which represents 80 percent of the City's total land area. Four other residential communities (Ivy Park at Laguna Woods [formerly The Regency], Ivy Park at Wellington [formerly Las Palmas], San Sebastian, and Whispering Fountains) provide an additional 650 dwelling units in the City.

The majority of the City's commercial and institutional uses are situated along El Toro Road and Moulton Parkway within 0.4 mile of their intersection. Two smaller retail nodes are located at the El Toro Road and Paseo de Valencia intersection and at the Moulton Parkway and Ridge Route Drive intersection. The City is now almost completely built out and contains very limited undeveloped land.

4.10.3.1 Existing Transportation Network

The City's street system is complete, with little, if any, ability to provide additional capacity. Future growth in traffic volumes on the City's arterial roadways will be largely due to growth in other cities and throughout the region. With the exception of certain intersection improvements, building new roads or expanding existing roads is not feasible.

4.10.4 Regulatory Setting

4.10.4.1 Federal Regulations

No federal policies or regulations pertaining to transportation are applicable to the proposed Project.

4.10.4.2 State Regulations

Senate Bill 743. On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law and started a process that changes the methodology of a transportation impact analysis as part of CEQA requirements. SB 743 directed the Governor's Office of Planning and Research (OPR) to establish new CEQA guidance for jurisdictions that removes the level of service (LOS) method, which focuses on automobile vehicle delay and other similar measures of vehicular capacity or traffic congestion, from CEQA transportation analysis. Rather, vehicle miles traveled (VMT), or other measures that promote "the reduction of greenhouse gas (GHG) emissions, the development of multimodal transportation networks, and a diversity of land uses," are now be used as the basis for determining significant transportation impacts in the State.

State CEQA Guidelines Section 15064.3, Subdivision (b). In January 2018, the California OPR submitted a proposal for comprehensive updates to the *State CEQA Guidelines* to the California Natural Resources Agency. The submittal included proposed updates related to the analysis of GHG emissions, energy, transportation impacts pursuant to SB 743, and wildfires, as well as revisions to Section 15126.2(a) in response to the California Supreme Court's decision in *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369. On December 28, 2018, the updated *State CEQA Guidelines* went into effect.

As part of the update to the *State CEQA Guidelines*, Section 15064.3 was added and codifies that project-related transportation impacts are typically best measured by evaluating the project's VMT. Specifically, subdivision (b) focuses on specific criteria related to transportation analysis and is divided into four subdivisions: (1) land use projects, (2) transportation projects, (3), qualitative analysis, and (4) methodology. Subdivision (b)(1) provides guidance on determining the significance of transportation impacts of land use projects using VMT; projects located within 0.5 mile of high quality transit should be considered to have a less than significant impact. Subdivision (b)(2) addresses VMT associated with transportation projects and states that projects that reduce VMT,

such as pedestrian, bicycle, and transit projects, should be presumed to have a less than significant impact. Subdivision (b)(3) acknowledges that Lead Agencies may not be able to quantitatively estimate VMT for every project type; in these cases, a qualitative analysis may be used. Subdivision (b)(4) stipulates that Lead Agencies have the discretion to formulate a methodology that would appropriately analyze a project's VMT.

4.10.4.3 Regional Regulations

Orange County Congestion Management Program (CMP). The Orange County Transportation Authority (OCTA) is a multimodal transportation agency that began in 1991 with the consolidation of seven separate agencies. OCTA serves Orange County residents and travelers by providing the following: countywide bus and paratransit service; Metrolink rail service; the 91 Express Lanes; freeway, street, and road improvement projects; individual and company commuting solutions; motorist aid services; and regulation of taxi operations. State law requires that a CMP be developed, adopted, and updated biennially for every county that includes an urbanized area, and requires that it include every city and the county government within that county. As the Congestion Management Agency for Orange County, OCTA is responsible for implementing the Orange County CMP.

OCTA adopted the CMP in 1991 to reduce traffic congestion and to provide a mechanism for coordinating land use and development decisions in Orange County. Compliance with the CMP requirements ensures a city's eligibility to compete for State gas tax funds for local transportation projects. The CMP was updated most recently in November 2019.

County of Orange Master Plan of Arterial Highways (MPAH). The MPAH defines the arterial system in the Circulation Element of the Orange County General Plan. This system, which is the planned future roadway system in the County, incorporates several specific arterial roadway classifications. The Circulation Elements of cities within the County are expected to be consistent with the MPAH in order to be eligible for funding improvements on MPAH roadways.

County of Orange Measure M Growth Management Program. Measure M, approved in 1990 by the voters in the County, authorized the collection of a one-half percent sales tax to fund needed transportation improvements in the County. In order to be eligible to receive funds, cities must satisfy a number of requirements, including adopting a Circulation Element that is consistent with the County's MPAH, adopting a Growth Management Plan, and adopting a seven-year capital improvement program to include transportation projects funded by Measure M.

4.10.4.4 Local Regulations

City of Laguna Woods General Plan. The City of Laguna Woods General Plan was approved by the City Council in October 2002.

The City's General Plan is the principal land use document guiding development within the City. The City's General Plan is a comprehensive plan that establishes goals, objectives, and policies intended to guide growth and development in the City. The General Plan also serves as a blueprint for development throughout the community and is the vehicle through which the community's needs, desires, and aspirations are balanced. The Laguna Woods General Plan is the fundamental tool for influencing the quality of life in the City.

General Plan Circulation Element. The Circulation Element, one of the seven elements of the City of Laguna Woods General Plan, guides development of the transportation system to support existing development and planned growth in the City. The Circulation Element is required by California Law (Government Code Section 65302) and must include the general location and extent of existing and proposed thoroughfares, transportation routes, and terminals, all correlated with the Land Use Element of the General Plan. State law also requires that the Circulation Element address public utilities. The City of Laguna Woods General Plan contains a Circulation Sub-element that discusses utilities. The Circulation Element serves as a guide to community leaders for future development of improvements to the transportation system in response to community needs and future growth in the City.

Objectives, policies, and implementation measures policies in this section suggest courses of action for seizing opportunities that will move the City toward achieving objectives set forth in the Circulation Element consistent with the overall development scenario of the General Plan. Implementation measures are specific actions to be taken to achieve objectives. They are specific, discreet steps that may be included in the City's work programs consistent with adoption of annual municipal budgets. Implementation measures typically involve capital improvement and public services programs.

- **Objective I:** Improve and expand transportation options within the City and to destinations outside the City.
 - **Policy I.A:** Maintain and enhance an integrated vehicular circulation network to accommodate local needs and land uses.
 - **Policy I.B:**
 - Develop strong working relationships with management and staff of the Orange County Transportation Authority (OCTA), Leisure World Transportation, South County Senior Services, and other appropriate agencies to highlight the transit needs of City of Laguna Woods residents, including the special needs of seniors, and to enhance and coordinate transit services in the City.
 - **Policy I.C:** Coordinate the efforts of all transit service providers to plan for and implement a package of improved services for residents and workers.
 - **Policy I.D:** Explore opportunities to contract for new transit services based upon the needs of the community.
- **Objective II:** Provide innovative alternatives for maintaining independence and mobility of residents.
 - **Policy II.A:** Consider implementation of local demand response and shuttle service.
 - **Policy II.B:** Help residents understand transit services and options.

- **Objective III:** Maintain and improve existing circulation infrastructure.
 - **Policy III.A:** Provide and maintain a bicycle circulation system that connects to adjacent jurisdictions consistent with the regional bicycle network.
 - **Policy III.B:** Accommodate the unique needs of residents in the design and construction of pedestrian facilities.
 - **Policy III.C:** Maintain and enhance infrastructure to promote alternative vehicle access where feasible.
- **Objective IV:** Identify potential impacts on the City of Laguna Woods of land use and transportation decisions of other governmental entities.
 - **Policy IV.A:** Coordinate with neighboring jurisdictions and with agencies responsible for projects affecting the City of Laguna Woods.

4.10.5 Thresholds of Significance

The thresholds for transportation impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to transportation if it would:

Threshold 4.10.1: Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Threshold 4.10.2: Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

Threshold 4.10.3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Threshold 4.10.4: Result in inadequate emergency access.

4.10.6 Project Impacts

Threshold 4.10.1: **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. A detailed VMT analysis was conducted for the Project based on the OCTAM model, using the County of Orange as the region. Based on the significance threshold criteria determined within the OPR Technical Advisory, the VMT per capita of the Project does not exceed the threshold. A secondary analysis was performed to evaluate the VMT per service population. The results also showed that the Project would not exceed the threshold based on service population. Therefore, the Project would have a less than significant transportation impact.

Additionally, compliance with the City's Municipal Code will address transportation design and emergency access. The Mobility Element includes numerous policies and implementation measures that are aligned with the objectives and priorities identified in the comment letters from Caltrans District 12, OCTA, and SCAG. Objectives and policies provided in the Mobility Element include:

- Improve and expand transportation options within the City and to destinations outside the City, Maintain and enhance an integrated vehicular circulation network to accommodate local needs and land uses;
- Develop strong working relationships with management and staff of the Orange County Transportation Authority (OCTA), Leisure World Transportation, South County Senior Services, and other appropriate agencies to highlight the transit needs of City residents, including the special needs of seniors, and to enhance and coordinate transit services in the City;
- Coordinate the efforts of all transit service providers to plan for and implement a package of improved services for residents and workers;
- Explore opportunities to contract for new transit services based upon the needs of the community;
- Provide innovative alternatives for maintaining independence and mobility of residents; and
- Help residents understand transit services and options. Maintain and enhance infrastructure to promote alternative vehicle access where feasible.

The City's Circulation Element objectives, policies, and implementation measures are consistent with the plans and policies of Caltrans District 12, OCTA, and SCAG.

Threshold 4.10.2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. According to *State CEQA Guidelines* Section 15064.3(a), project-related transportation impacts are generally best measured by evaluating the Project's VMT, which refers to the amount and distance of automobile travel attributable to a project.

As indicated previously, the proposed Project includes the adoption of zoning overlays that could result in the replacement of existing non-residential uses with new residential uses. 16 of the 17 Potential Housing Sites are currently developed with non-residential uses. The existing land use information on these parcels was converted to employees using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. The *ITE Trip Generation Manual* includes trip rates for different types of land uses by multiple unit types that were used to develop land use to employee conversion factors (employees per thousand square feet). Other data sources were also used for land use to employee conversion factors in case no data were available from ITE. No conversion factors were available for some types of land uses where a nominal number of employees were assumed for existing use (e.g., churches). The existing land uses were converted to employees and aggregated to the OCTAM model TAZs. Employment due to existing land uses was

removed from the Project location TAZs and the number of dwelling units from the Project were added to the corresponding TAZs. Table 4.10.A provides the existing land uses, model TAZ IDs, and the estimated number of employees associated with each of the Potential Housing Sites. Table 4.10.B aggregates the number of dwelling units to be added and the existing number of employees to be removed from the OCTAM model TAZs.

Table 4.10.A: Potential Housing Sites – Existing Land Uses and Employment (Estimated)

Site ID	Model TAZ	Existing Use Description	ITE Land Use	Land Use Quantity (KSF)	Total Employees (Estimated)
1	1448	Town Centre Vacant Lot	None (not currently developed)	0.0	0
2	1456	Pacific Hills Calvary Chapel Parking Lot	None (currently developed with only a parking lot)	0.0	0
3	1456	Rossmoor Electric	Retail	11.4	16
3	1456	N/A	Medical Building	11.4	16
4	1456	Saddleback Golf Cars	Retail	20.1	29
5	1448	Laguna Woods Self Storage	Storage	92.9	5
5	1448	N/A	Office	1.6	5
6	1448	Animal Hospital	Animal Hospital	5.5	9
7	1447	PS Business Park	Storage	81.1	5
7	1447	N/A	Retail	14.0	20
7	1447	N/A	Restaurant	1.2	10
8	1456	Smart Parke	Retail	23.5	34
9	1451	McCormick & Son Mortuary	Mortuary	7.4	5
10	1447	Lutheran Church of the Cross	Church	15.6	5
11	1448	Geneva Presbyterian Church	Church	46.8	5
12	1451	Saint Nicholas Catholic Church	Church	43.0	5
13	1451	Temple Judea	Temple	11.0	15
14	1451	Laguna Country United Methodist Church	Church	32.1	5
15	1448	Medical Building in Town Centre	Medical Office	35.5	147
16	1451	N/A	Restaurant	7.9	40
16	1451	Willow Tree Center East	Retail	3.5	5
16	1451	N/A	Adult Daycare	10.4	34
17	1451	Helm Center	Medical Office	9.2	38

Source: LSA (2022).

KSF = thousand square feet

N/A = No description available

TAZ = Traffic Analysis Zone

Table 4.10.B: OCTAM Socioeconomic Changes by Traffic Analysis Zone

Model TAZ	Total Employment (to remove)	Total Dwelling Units (to add)
1447	40	205
1448	171	606
1451	146	370
1456	95	278

Source: LSA (2022).
OCTAM = Orange County Transportation Analysis Model
TAZ = Traffic Analysis Zone

OCTAM does not include the capability to split/add new TAZs and given that the VMT metrics will be evaluated for the entire City (with the General Plan Update), the socioeconomic data modifications were conducted directly to the TAZs that correspond to the Potential Housing Sites.

Model Runs and Project VMT Estimation. A horizon year (2045) model run was conducted using the adjusted socioeconomic data for the Potential Housing Site TAZs (modifications from Table 4.10.B). No circulation/network modifications were identified for inclusion in the model network. The outputs from this updated model run were used to calculate the VMT per capita for the City with the proposed amendments. The detailed VMT tables are provided in Appendix C.

As indicated before, for land use plans, the OPR Technical Advisory recommends use of VMT per capita to evaluate residential land uses and VMT per employee to evaluate non-residential land uses. Since the Project would allow the development of housing units on the Potential Housing Sites, LSA estimated VMT per capita for the City with the addition of the proposed residential land uses.

Project VMT Analysis. The proposed Project would constitute a significant impact if the forecasted VMT metric for the Project is greater than 85 percent of the regional existing VMT metric. Hence the proposed Project would constitute a significant impact if the 2045 citywide VMT per capita is greater than 85 percent of the Orange County VMT per capita (threshold). As can be seen in Table 4.10.C, the citywide VMT per capita with the Project would be lower than the Orange County regional threshold.

Table 4.10.C: 2045 City of Laguna Woods VMT Per Capita (With Project) Comparison with Regional Threshold

	2045 City of Laguna Woods (With Project)	Existing Entire Orange County ¹	Threshold ²	Significant Impact
VMT per Capita	13.0	17.9	15.2	No

Source: LSA (2022).

¹ Obtained from Final Draft Guidelines for Evaluating Vehicle Miles Traveled Under CEQA for the County of Orange, September 17, 2020.

² 85% of the regional average (17.9*0.85=15.2).

CEQA = California Environmental Quality Act

VMT = vehicle miles traveled

Also, given that the Project includes the potential demolition of existing non-residential uses, LSA reviewed the effect of non-residential use removal by evaluating the efficiency metric of origin-destination (OD) VMT per service population. Given that the OPR recommends use of different efficiency metrics to evaluate residential and non-residential uses, to evaluate a combined effect of both types of land uses such as with this Project, OD VMT per service population was used. Similar to VMT per capita, 2045 citywide OD VMT per service population was compared with Orange County existing VMT per service population to assess Project VMT impact. As shown in Table 4.10.D, the 2045 citywide VMT per service population would be lower than the Orange County regional threshold. Therefore, the Project would result in less than significant VMT impacts.

Table 4.10.D: 2045 City of Laguna Woods VMT Per Service Population (With Project) Comparison with Regional Threshold

	2045 City of Laguna Woods (With Project)	Existing Entire Orange County¹	Threshold²	Significant Impact
VMT per Service Population	24.9	30.3	25.7	No

Source: LSA (2022).

¹ Obtained from LSA 2016 no project OCTAM run.

² 85% of the regional average (30.3*0.85=25.7).

OCTAM = Orange County Transportation Analysis Model

VMT = vehicle miles traveled

Based on the recommendations from the OPR Technical Advisory, the proposed Project was evaluated based on VMT per capita. An assessment of the trip generation comparison between the existing and the proposed land uses did not screen the Project out from a VMT analysis. A detailed VMT analysis was conducted for the Project based on the OCTAM model, using the County of Orange as the region. Based on the significance threshold criteria determined within the OPR Technical Advisory, the VMT per capita of the Project would not exceed the threshold. A secondary analysis was performed to evaluate the VMT per service population. The results also showed that the Project would not exceed the threshold based on service population. Therefore, the Project would have a less than significant transportation impact. No mitigation is required.

Threshold 4.10.3: 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)?

No Impact. The proposed Project would not alter the existing circulation system in the City. Any improvements needed to accommodate future residential units would be analyzed during site plan review and any circulation improvements such as driveway access and intersection controls would be implemented consistent with the City’s Municipal Code. There would be no impact, and further analysis is not required.

Threshold 4.10.4: Would the project result in inadequate emergency access?

No Impact. Any improvements needed to accommodate future residential units would be analyzed during site plan review, and any necessary fire or sheriff emergency access would be implemented

consistent with the City's Municipal Code. There would be no impact, and further analysis is not required.

4.10.7 Level of Significance Prior to Mitigation

The proposed Project would not result in potentially significant impacts related to transportation. Through compliance with the City's Municipal Code, the existing circulation network would not be adversely impacted or substantially degraded by the Project's population, VMT thresholds would not be exceeded, and impacts would be less than significant.

4.10.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are applicable to the proposed Project pertaining to transportation.

4.10.9 Cumulative Impacts

The purpose of this section is to evaluate any additional incremental impact that the proposed Project is likely to cause over and above the combined impacts of recently approved and proposed projects in Laguna Woods. The impact area used to assess potential cumulative recreational impacts is Laguna Woods because the proposed Project would affect transportation facilities within Laguna Woods. The City has not seen any new housing development since completion of the San Sebastian development project in 2008. The 12 sites proposed for land use designation changes and rezoning will reflect existing uses and would not result in additional traffic generation. The trips from these existing uses is already part of the trip generation baseline. Therefore, the cumulative impacts associated with the proposed Project would only consider impacts from the new housing development allowed by the proposed zoning overlays on the Potential Housing Sites, which would not contribute to transportation impacts in the Project vicinity.

A detailed VMT analysis was conducted for the Project based on the OCTAM model, using the County of Orange as the region. Based on the significance threshold criteria determined within the OPR Technical Advisory, the VMT per capita of the Project does not exceed the threshold. A secondary analysis was performed to evaluate the VMT per service population. The results also showed that the Project would not exceed the threshold based on service population. Therefore, the Project would have a less than significant transportation impact.

Additionally, compliance with the City's Municipal Code will address transportation design and emergency access. Impacts from the proposed Project would not be considered cumulatively considerable.

4.10.10 Level of Significance After Mitigation

The proposed Project would not result in potentially significant impacts related to transportation, and mitigation measures are not required.

4.11 UTILITIES AND SERVICE SYSTEMS

4.11.1 Introduction

This section describes the utility providers within whose service area Laguna Woods is located and evaluates the potential impacts of the Laguna Woods General Plan and Zoning Code Update (proposed Project) on utilities and service systems. This section is based on multiple data sources, including utility provider websites and adopted planning documents of utility providers, and the City of Laguna Woods' (City) General Plan. This section addresses the following utilities (service providers are noted in parentheses):

- Electricity (Southern California Edison [SCE])
- Natural Gas (Southern California Gas Company [SoCalGas])
- Solid Waste (CR&R, Inc.)
- Wastewater and Potable Domestic Water (El Toro Water District [ETWD])
- Storm Drainage (Orange County Flood Control District [OCFCD])

4.11.1.1 Scoping Process

The City received nine comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Program Environmental Impact Report (PEIR). None of the comment letters contained comments related to utilities and service systems.

4.11.2 Methodology

Information regarding water and wastewater generation and demand from the El Toro Water District's (ETWD) 2020 Urban Water Management Plan (UWMP) was used to describe the existing conditions and to evaluate potential impacts that would result from implementation of the proposed Project. Regulations from the City's Municipal Code were also identified to describe the existing environmental setting. Data from the California Energy Commission (CEC) were used to describe gas and electricity consumption in Orange County (County) and by the service providers that serve the City of Laguna Woods.

4.11.3 Existing Environmental Setting

4.11.3.1 Wastewater

The ETWD owns and operates the sewer system serving the City. The ETWD provides sewer treatment to more than 48,800 residential customers per year in the Cities of Laguna Woods, Laguna Hills, Mission Viejo, Lake Forest, and Aliso Viejo. Wastewater is removed via the sanitary sewer system, which consists of approximately 158 miles of sewer lines ranging in size from 4 inches to 24 inches in diameter, and 11 sewer pumping facilities across ETWD's 5,430-acre service area (ETWD 2022).

The ETWD is a multiservice agency responsible for providing domestic water service, sewage collection and treatment, and water recycling in southern Orange County, California. Collected wastewater from the City is pumped to the ETWD Water Recycling Plant (WRP) located in south

Orange County. The ETWD operates one treatment plant where wastewater is treated and either used for irrigation or disposed of through South Orange County Wastewater Authority's (SOCWA) effluent transmission main and ocean outfall.

The WRP has undergone several upgrades since its construction in 1963, and it currently has a capacity of 5.54 million gallons per day (mgd) under an average flow condition, although it has the capacity to treat a maximum flow of 6 mgd to secondary effluent standards. Effluent from the WRP is treated to secondary or tertiary levels depending on the disposal method, ocean outfall, or beneficial reuse. Recycled water is treated to Title 22 standards¹ with the expansion completed in 2014. Treated effluent that is not recycled is disposed of through the Aliso Creek Ocean Outfall. About 30 percent of the ETWD's current wastewater is recycled to be used for landscape irrigation, irrigation on the WRP grounds, and as process water at the WRP. Approximately 35 percent of ETWD's service area lies within Laguna Woods (ETWD 2021).

4.11.3.2 Water Supply

The City is also within the ETWD's domestic water service area. ETWD is a member agency of the Municipal Water District of Orange County (MWDOC), a wholesaler of imported water, which is purchased, transported, and treated by the Metropolitan Water District of Southern California (MWD). The imported water from MWDOC fills ETWD's 275 million gallon (mg) reservoir or directly feeds the distribution system. Water from MWDOC and/or the reservoir is fed through pressure reducing valves or via pumping stations to provide adequate system pressures at the ETWD's service connections. The ETWD's service area covers approximately 5,430 acres within Orange County including all of Laguna Woods and portions of Lake Forest, Aliso Viejo, Laguna Hills, and Mission Viejo (ETWD 2021). The ETWD delivers 8,437 acre-feet (af) of potable water to residential and commercial uses annually through 9,536 connections.

The ETWD adopted the 2020 Urban Water Management Plan (UWMP), which provides an assessment of the present and future water supply sources and demands within the ETWD's service area. The State requires the ETWD to update its UWMP every 5 years. The UWMP provides the California Department of Water Resources (DWR) with information on the present and future water resources and demands and provides an assessment of the ETWD's water resource needs.

The ETWD relies on a combination of purchased or imported water, surface water, and recycled water to meet its water needs. As described in its 2020 UWMP, the ETWD's total water supply was 8,437 af in 2020. This consisted of 4,079 af of purchased or imported water wholesaled by the MWDOC that was treated, 2,736 af of purchased or imported water wholesaled by the MWDOC that was untreated, 1,270 af of recycled water treated at the ETWD's WRP, and 352 af of surface water (not desalinated) imported from Irvine Lake (ETWD 2021). Purchased or imported water makes up the largest portion of the ETWD's current total water supply, at approximately 81 percent.

¹ Title 22 of California's Code of Regulations refers to State guidelines for how treated and recycled water is discharged and used.

Water Supply and Demand Projections. The supply and demand forecasts for the fifth-dry-year scenario (considered to be the worst-case scenario) included in the ETWD’s 2020 UWMP are shown in Table 4.11.A. As shown in Table 4.11.A, in the multiple-dry-year scenario, the ETWD is capable of meeting all of its customers’ demands from 2025 through 2045.

**Table 4.11.A: Water Supply and Demand Projections Comparison
Third-Dry-Year Supply (2020–2045)**

Year	Water Supply (af)	Water Demand (af)	Surplus (af)
2025	9,523	9,523	0
2030	9,958	9,958	0
2035	9,975	9,975	0
2040	9,998	9,998	0
2045	9,980	9,980	0

Source: 2020 Urban Water Management Plan, Table 7-4 (ETWD 2021).

¹ An acre-foot is the amount of water necessary to cover 1 acre of surface area to a depth of 1 foot and is approximately 326,000 gallons of water.

af = acre-feet

ETWD = El Toro Water District

4.11.3.3 Storm Drains

The storm drain system within the City is owned in part by three distinct entities: the Orange County Flood Control District (OCFCD), the City, and private property owners. The portions of the storm drain system currently or previously owned by the OCFCD have been mapped out. These stormwater facilities carry runoff away from impermeable surfaces in the City to designated drainage areas. The City of Laguna Woods is a part of three watersheds: Aliso Creek, Laguna Coastal Streams, and Newport Bay.

4.11.3.4 Solid Waste

Solid waste disposal in the City is provided by CR&R. Based on available disposal reporting data from the California Department of Resources Recycling and Recovery (CalRecycle) website, it was estimated that the annual tonnage of solid waste generated by all sources in the City in 2019 was 1,113 tons per year (or 2,224,000 pounds per year) (CalRecycle 2022).

The CR&R Transfer and Material Recovery Facility in Stanton is the closest facility operated by CR&R to the City and is located approximately 20 miles northwest of Laguna Woods. This facility accepts general waste, wood waste, green waste, bulky items, electronic waste, and construction/demolition wastes.

Assembly Bill (AB) 939 was enacted in 1989. This bill mandated a 25 percent reduction of waste being disposed of in the landfill system by 1995, and a 50 percent reduction by 2000. In response to AB 939, the California Integrated Waste Management Board (now known as CalRecycle) was established to monitor compliance with waste reduction requirements. According to CalRecycle, all counties within the State are required to have an approved Countywide Integrated Waste Management Plan (CIWMP), which outlines methods for waste diversion and demonstrates sufficient solid-waste disposal capacity for a minimum of 15 years. In compliance with AB 939, the

County prepared a CIWMP, which is kept current, demonstrating the required 15-year disposal capacity and allowing disposal of a maximum daily imported waste stream of 1,000 tons per day (tpd). Imported tonnage varies depending on demand and is limited by the solid waste facility permit for each site.

4.11.3.5 Natural Gas

A majority of natural gas utility customers in California are residential and small commercial customers. Although larger volume gas customers like electric generators and industrial customers are small in number, they consume about 65 percent of the natural gas delivered by the State's natural gas utilities, while residential and small commercial customers consume about 35 percent. California continues to depend upon out-of-state imports for nearly 90 percent of its natural gas supply (CPUC 2022b).

SoCalGas is the natural gas service provider for the City. SoCal Gas provides natural gas to approximately 21.8 million people in a 24,000-square-mile service area throughout Central and Southern California, from Visalia to the Mexican border. SoCalGas owns and operates four natural gas storage facilities within southern California: Aliso Canyon, Honor Rancho, La Goleta, and Playa Del Rey (CPUC 2022a). According to the CEC, total natural gas consumption in the SoCalGas service area in 2020 was 5,231.5 million therms (CEC 2020b). Total natural gas consumption in Orange County in 2020 was 594.6 million therms (CEC 2020a).

4.11.3.6 Electricity

In 2020, California's electricity was generated primarily by natural gas (48.5 percent), large hydroelectric (9.5 percent), nuclear (8.5 percent), and renewable sources (33.5 percent) (CEC 2020f). Total electric generation in California in 2020 was 279,510 gigawatt-hours (GWh), down 1.0 percent from the 2019 total generation of 282,194 GWh (CEC 2020d).

The Project site is within the service area of SCE, which provides services through a grid of transmission lines and related facilities. SCE provides electricity to more than 15 million people in a 50,000-square-mile area of Central, Coastal, and Southern California (SCE 2019). According to the CEC, total electricity consumption in the SCE service area in 2020 was 83,533 GWh (32,475 GWh for the residential sector) (CEC 2020e). Total electricity consumption in Orange County in 2020 was 19,733 GWh (7,765 GWh for the residential sector) (CEC 2020c).

4.11.4 Regulatory Setting

4.11.4.1 Federal Regulations

No federal regulations for utilities and service systems are applicable to the proposed Project.

4.11.4.2 State Regulations

California Integrated Waste Management Act of 1989. The California Integrated Waste Management Act of 1989 (Public Resource Code [PRC] Division 30), enacted through AB 939 and modified by subsequent legislation, required all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of wastes by 2000 (PRC Section

41780). The State determines compliance with this mandate to “divert” 50 percent of generated waste (which includes both disposed and diverted waste) through a complex formula. This formula requires cities and counties to conduct empirical studies to establish a “base year” waste generation rate against which future diversion is measured. The actual determination of the diversion rate in subsequent years is arrived at through deduction, not direct measurement; instead of counting the amount of material recycled and composted, the city or county tracks the amount of material disposed at landfills, then subtracts the disposed amount from the base year amount. The difference is assumed to be diverted (PRC 41780.2).

Senate Bill 1374. Senate Bill (SB) 1374 requires that the annual report submitted to CalRecycle include a summary of the progress made in diversion of construction and demolition waste materials. In addition, SB 1374 required that CalRecycle adopt a model ordinance suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition waste materials from landfills by March 1, 2004. Local jurisdictions are not required to adopt their own construction and demolition ordinances, nor are they required to adopt CalRecycle’s model by default. However, adoption of such an ordinance may be considered by CalRecycle when determining whether to impose a fine on a jurisdiction that has failed to implement its Source Reduction and Recycling Element (SRRE).

Assembly Bill 75. AB 75, passed in 1999, took effect on January 1, 2000. This bill adds new provisions to the PRC, mandating that State agencies develop and implement an Integrated Waste Management Plan (IWMP); it also mandates that community service districts providing solid-waste services report disposal and diversion information to the city, county, or regional agency in which the community service district is located.

Title 24 of the California Code of Regulations. Energy and water consumption by new buildings in California is regulated by the California Green Building Standard Standards Code (CALGreen Code), embodied in California Code of Regulations (CCR) Title 24. Title 24 provides efficiency standards for new construction and the rehabilitation of both residential and nonresidential buildings, including building energy consumption, water conservation, and operational efficiencies. Title 24 regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting with regard to both electricity and natural gas, while also regulating water consumption through the installation of efficient plumbing fixtures. The efficiency standards apply to both new construction and rehabilitation of both residential and nonresidential buildings. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed Title 24 Building Code requirements. The 2019 standards went into effect January 1, 2023, following approval by the California Building Standards Commission.

Assembly Bill 341. AB 341, enacted in 2011 and effective in 2012, changes the due date of the State agency waste management annual report to May. The bill makes a legislative declaration that it is the policy goal of the State of California that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020.

Public Health and Safety Code Part 9.5, Section 115700. Public Health and Safety Code Part 9.5, Section 115700, requires the proper decommissioning of inactive wells to prevent the

contamination of groundwater. The section provides specifics for the casing, securing, and marking of wells and the surrounding area. This section also provides that, at minimum, permanently inactive wells shall be destroyed in accordance with standards developed by the California Department of Water Resources pursuant to Section 13800 of the Water Code and adopted by the State Water Resources Control Board or local agencies in accordance with Section 13801 of the Water Code. Minimum standards recommended by the DWR and adopted by the State board or local agencies for the abandonment or destruction of groundwater monitoring wells or class one hazardous injection wells shall not be construed to limit, abridge, or supersede the powers or duties of the DWR, in accordance with Section 13801 of the Water Code.

4.11.4.3 Regional Regulations

El Toro Water District 2020 Regional Urban Water Management Plan. The ETWD's 2020 Regional UWMP lists and describes the various uses, demand, supplies, target reductions, and compliance measures for its service area which includes 5,430 acres in the City and portions of the Cities of Lake Forest, Aliso Viejo, Laguna Hills, and Mission Viejo. The 2020 Regional UWMP found that under the current supply demands for a multiple-dry-year scenario (i.e., drought conditions), the MWDOC would have sufficient supply to meet the projected growing demand for water from 2025 to 2045 while still meeting statewide reduction targets. The MWDOC which is the wholesale water supplier for the ETWD, is currently working to develop programs to increase its water supply and create a large surplus during multiple-dry-year scenarios to ensure that water demands will still be addressed during emergency drought situations. With demands projected to be around 185,806 af in 2045 during multiple-dry-year scenarios, the MWDOC would be capable of meeting all customers' demands from 2025 through 2045 with significant reserves held by the Metropolitan Water District of Southern California (MWD) and through conservation.

4.11.4.4 Local Regulations

Climate Adaptation Plan. The City's Climate Adaptation Plan establishes an approach for the City to prepare for a future with evolving and potentially varying climate conditions. The Climate Adaptation Plan identifies local vulnerabilities to climate change impacts (e.g., increased temperatures, decreased precipitation, and strained water supplies) and outlines a strategy to increase resilience to climate change-related hazards, increase resource independence, and sustain and advance climate adaptation efforts. At the time of its initial adoption in late 2014, the Climate Adaptation Plan was the first non-coastal, stand-alone, municipal climate adaptation plan in California. Conservation Element goals, policy objectives, and implementation actions support and are consistent with the Climate Adaptation Plan, particularly with respect to the use and management of energy- and water-related resources.

National Pollutant Discharge Elimination System Local Implementation Plan. The City's Local Implementation Plan is the principal policy and guidance document for the City's stormwater/water quality programs. The Local Implementation Plan is prepared and maintained in accordance with applicable National Pollutant Discharge Elimination System (NPDES) permits regulating stormwater and waste discharges to the municipal separate storm sewer system (MS4). Conservation Element goals, policy objectives, and implementation actions related to water resources support and are consistent with the Local Implementation Plan.

Source Reduction and Recycling Element. The City's Source Reduction and Recycling Element (SRRE) demonstrates how the City will achieve and maintain compliance with waste diversion goals established by the State. The Source Reduction and Recycling Element fulfills requirements established by the California Integrated Waste Management Act (Assembly Bill 939, Sher, Chapter 1095, Statutes of 1989 as amended). Conservation Element goals, policy objectives, and implementation actions related to waste and recycling support and are consistent with the SRRE.

City of Laguna Woods Municipal Code. The following City of Laguna Woods Municipal Code sections are relevant to utilities and service systems:

- **Chapter 4.10:** This section implements the City's authority related to solid waste granted by state law and regulations promulgated by CalRecycle. This chapter also regulates the conduct of solid waste collection and disposal.
- **Chapter 4.14:** This section reduces pollutants in stormwater and non-stormwater discharges flowing to receiving waters to the maximum extent practicable by 1) prohibiting illegal discharges and illicit connections, 2) requiring implementation of best management practices, and 3) establishing development and significant redevelopment standards.
- **Chapter 4.24:** This section increases the amount of construction and demolition waste diverted from landfills by requiring minimum levels of reuse or recycling of waste generated by certain types of projects.
- **Chapter 4.28:** This section encourages efficient and conservation oriented use of water in new and rehabilitated landscapes by limiting the amount of water able to be applied and requiring compliance with El Toro Water District regulations.
- **Section 10.08.010 Adoption of the California Building Code:** This section adopts and incorporates by reference the California Building Code (CBC) (which includes the California Green Building Standards Code [CALGreen Code]).
- **Section 10.10.010 Adoption of the California Electrical Code:** This section adopts and incorporates by reference the California Electrical Code.
- **Section 10.16.010 Adoption of the California Plumbing Code:** This section adopts and incorporates by reference the California Plumbing Code.
- **Section 10.24.010 Adoption of the California Green Building Standards Code:** This section adopts and incorporates by reference the California Green Building Standards Code (CALGreen Code).
- **Section 12.12.130 Underground Utility Lines:** This section outlines requirements for the undergrounding of utility lines.
- **Section 12.12.140 Sewers:** This section establishes that all lots for potential development would be connected to a sanitary sewer system.

- **Section 12.12.150 Drainage and Erosion Control:** This section outlines standards of design and requirements for drainage and erosion control.

City of Laguna Woods General Plan Land Use Element. The primary purpose of the Land Use Element is to guide future development in the City of Laguna Woods. The Land Use Element consists of the policy document which defines the land use plan for future development as well as the background report which provides information about the City. The following policy is relevant to utilities:

- **Implementation Measure II.A.7:** Incorporate stormwater design considerations or Standard Urban Stormwater Mitigation Plans (SUSMPs) and the implementation of Best Management Practices (BMPs), to the maximum extent practicable, in new development and significant redevelopment projects to improve water quality and ensure compliance with the City Local Implementation Plan (LIP).

City of Laguna Woods General Plan Conservation Element. The primary purpose of the Conservation Element is to identify priority conservation issues in Laguna Woods and set forth long-range City policies and programs to achieve balance between the needs of the community and environmental stewardship. The following policies are relevant to utilities:

- **Policy Objective CO-7.1:** Adopt and enforce regulations promoting water resource goals.
 - Adopt, review, update, and enforce regulations including, but not limited to regulations pertaining to the attainment of goals, targets, and standards established by National Pollutant Discharge Elimination System (NPDES) permits.

4.11.5 Thresholds of Significance

The proposed Project may be deemed to have a significant impact with respect to utilities and service systems impacts if it would do the following:

Threshold 4.11.1: 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.

Threshold 4.11.2: Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Threshold 4.11.3: Not 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.

Threshold 4.11.4: 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.

Threshold 4.11.5: Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.11.6 Project Impacts

Threshold 4.11.1: **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. The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites as well as amendments to the zoning and land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses either Community Facilities – Public/Institutional or Open Space districts. The amendments to the zoning and land use designations on these properties are intended to better correlate existing uses with General Plan land use designations and zoning and would not result in additional development.

The City's housing needs allocation for the planning period between October 2021 and October 2029 was established by the Southern California Association of Governments (SCAG) at 997 units. The zoning overlays that are proposed as part of the Project would accommodate the construction of 1,196 housing units on the Potential Housing Sites. According to the 2017 American Housing Survey (AHS), the average household size in structures that have 50 or more housing units (the highest housing density type evaluated in the AHS) in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area (MSA) was 1.99 persons. Because most of the proposed zoning overlays would allow for higher density housing, 1.99 persons per household was deemed appropriate for use in the analysis contained in this PEIR. Therefore, the additional 1,196 housing units that would potentially be built in the City are estimated to result in an increase in 2,382 residents.

According to CalEEMod projections, the proposed zoning overlay would result in approximately 325 af of indoor and outdoor water use. The ETWD states that the annual water use in its service area for residential uses was approximately 4,681 af (or approximately 1,525 million gallons) in 2020, and the water demand for residential uses is expected to lessen to 4,660 af (or approximately 1,518 million gallons) by 2045. The UWMP states that a weighted average of the Regional Housing Needs Assessment (RHNA) projections for each city served by the ETWD was used in the calculations for future water demand in the UWMP, and thus, the estimated 997 units that were required by the RHNA for Laguna Woods are accounted for in the future water demand projections of the ETWD UWMP given that all the Potential Housing Sites are located within the ETWD service area. Therefore, the new housing development allowed under the proposed Project would be less than significant based on RHNA allocation being considered in the UWMP water use projections as identified in Section 4.3 of the UWMP. Additionally, the 1,196 units (which include the 997 units included in the RHNA allocation) that could be accommodated on the Potential Housing Sites would replace existing uses that currently are assumed in the water use projections. The potential new demand impacts of the additional 199 units would be off-set to a level of insignificance due to the removal of existing uses to accommodate full build out of the 1,196 units.

The ETWD also owns and operates the City's sewer system. As indicated above, the WRP currently has a capacity of 5.54 mgd under an average flow condition, although it has the capacity to treat a maximum flow of 6 mgd to secondary effluent standards. According to the 2020 UWMP, approximately 4,219 af of wastewater were generated in the ETWD service area in the 2019–2020 fiscal year. Wastewater volume is calculated in the UWMP using potable water consumption in the service area. The potential development of 1,196 housing units would account for the generation of approximately 325 af of wastewater annually.² The additional demand can be accommodated at the existing WRP. Additionally, the 1,196 housing units which could be accommodated in the zoning overlays would replace existing uses that currently generate wastewater. Impacts to wastewater generation from any future projects developed in accordance with the proposed Project would be less than significant.

The City is part of three watersheds: Aliso Creek, the Laguna Coastal Streams, and Newport Bay. Any future projects implemented in accordance with the proposed zoning overlays would comply with the requirements of the Construction General Permit and may include the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would include construction BMPs to control and direct on-site surface runoff and would include detention facilities, if required, to ensure that stormwater runoff from the construction site would not exceed the capacity of the stormwater drainage systems. The new development allowed under the proposed Project would also comply with applicable MS4 Permit, which requires the preparation of a Final WQMP and implementation of operational BMPs to target and reduce pollutants of concern in stormwater runoff from project sites. Compliance with applicable MS4 Permit would reduce operational impacts related to surface water quality standards, waste discharge requirements, and/or degradation of water quality to a less than significant level, and no mitigation is required. Additionally, the 1,196 units would replace existing urban uses, several of which were constructed prior to current MS4 permit requirements.

According to the CEC, total natural gas consumption in Orange County in 2020 was 594.6 million therms (CEC 2020a). CalEEMod was used to calculate the approximate annual natural gas associated with future housing development on the Potential Housing Sites. The estimated potential increase in natural gas demand associated with the proposed Project is 23,826,100,000 British thermal units (BTU) per year (238,318 therms per year). Therefore, operation of the new residential development allowed under the proposed Project would increase annual consumption in Orange County by 0.04 percent. The proposed Project would not require the construction of any physical improvements related to the provision of natural gas service that would result in significant environmental impact. Additionally, the 1,196 units would replace existing urban uses, several of which consume natural gas, thereby decreasing the net gain in natural gas consumption.

Based on the CalEEMod outputs for the proposed Project, the estimated potential increase in electricity demand associated with the operation of the new residential development allowed under the proposed Project is 7,794,464 kilowatt-hours (kWh) per year. Total electricity demand in Orange County in 2020 was approximately 19,733 GWh (19,733,139,603 kWh). Therefore, operation of the proposed Project would increase annual electricity consumption in Orange County by approximately 0.04 percent. Electricity demand for the proposed Project would be less than significant.

² 105,910,700 gallons of potable water used by residential uses x (1 af / 325,851 gallons) = 325 af

Additionally, the 1,196 units would replace existing urban uses, all of which consume electricity, thereby likely decreasing any net gain in electricity consumption. Lastly, any future projects that would be developed in accordance with the proposed zoning overlays would be responsible for constructing adequate tele-communication facility extensions on their respective project sites.

Any future projects implemented in accordance with the proposed zoning overlays would be required to adhere to the General Plan, provide required development impact fees, and comply with applicable development regulations pertaining to water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. As a part of the development review process, all future projects would be required to demonstrate that existing public utilities would be sufficient to serve the future projects' needs.

The proposed Project also includes text changes to the Circulation Element, Land Use Element, and Noise Element, and renames the Circulation Element to the Mobility Element. The text changes to the Noise Element include an update to the noise contour maps to reflect current noise conditions in the City as well as those anticipated under the General Plan. These text amendments to the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. Text changes to the Noise Element would not facilitate or entitle any physical development that would result in impacts to utilities or service systems. Text changes to the Land Use element are necessary to provide internal consistency between General Plan elements. The renaming of the Circulation Element to the Mobility Element is being provided to meet State law requirements for circulation elements. "Mobility" is purposefully used in this element's title to emphasize the City's commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines "users of streets, roads, and highways" as including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities that would affect utilities. As mentioned earlier, the City is substantially built out, and the Mobility Element focuses on maintaining and coordinating the City's balanced multi-modal transportation network and supporting regional transportation planning. The renaming of the Circulation Element to the Mobility Element (consistent with State law) would not facilitate or entitle any physical development that would result in impacts to utilities or service systems. Nevertheless, the proposed project would increase demand for water, wastewater treatment, stormwater drainage, electric power, natural gas, and telecommunications facilities. Therefore, it would result in less than significant impacts on utilities and service systems, and no mitigation is required.

Threshold 4.11.2: Would the project 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. As indicated above, the proposed Project consists of the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites as well as amendments to the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses to either Community Facilities – Public/

Institutional or Open Space districts. The amendments to the zoning and land use designations on these properties are intended to better correlate existing uses with General Plan land use designations and zoning and would not result in additional development.

According to water demand factors included in the CalEEMod emissions model, future development allowed under the proposed Project is estimated to demand approximately 106 million gallons per year (approximately 65 million gallons for indoor use and 41 million gallons for outdoor use) or 325.0 acre-feet per year (afy) of potable water.³ Therefore, the estimated increase in water demand associated with the new development proposed as part of the Project would represent approximately 6.9 percent and 7.0 percent of the ETWD's current annual water demand, based on the system's projected demand of 4,681 af in 2020 and 4,660 af in 2045, respectively. As noted previously, the 997 RHNA units were assumed in the water demand projections in the ETWD 2020 UWMP. Additionally, the 1,196 housing units (which include the 997 units in the City's RHNA allocation) that could be accommodated in the zoning overlays would replace existing uses that currently are assumed in the water use projections. The potential new demand impacts of the additional 199 units would be off-set to a level of insignificance due to the removal of existing uses to accommodate full build out of the 1,196 units. The Project-generated increase in water demand would be considered less than significant and would fall within existing capacity and available supply.

According to the 2020 UWMP, ETWD's available water supply would meet the future projected demand for normal year demands from 2025 through 2045. Should the need arise, ETWD can purchase more water from MWD through the MWDOC. For single dry years, a 9 percent increase in demand is expected for the South County region where the ETWD's service area is located. However, the City would be able to meet the future projected demand in these conditions from 2025 to 2045 with significant reserves held by MWD and through conservation. For the five consecutive dry year scenario, a 9 percent increase in demand is expected for the South County region compounded over the five years. Even with the demand increase of 9 percent each year (for a five consecutive year scenario), the ETWD would be capable of meeting all customers' demands from 2025 to 2045 with significant reserves by the MWD and through conservation. Therefore, the proposed Project would not result in insufficient water supplies during normal, dry, and multiple dry years, and adequate water supply would be available to accommodate for the potential residential development on the Potential Housing Sites. Additionally, text changes to the Noise or Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in impacts to utilities and service systems. As discussed above, the proposed Project would increase demand for water supplies; however, the ETWD would have sufficient water supplies to serve the proposed Project. Therefore, the proposed Project would result in less than significant impacts related to water supplies. No mitigation is required.

Threshold 4.11.3: 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?

³ $105,910,700 \text{ gallons} \times (1 \text{ af} / 325,851 \text{ gallons}) = 325.0 \text{ af}$

Less Than Significant Impact. As indicated above, the proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites as well as amendments to the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses to either Community Facilities – Public/Institutional or Open Space districts. The amendments to the zoning and land use designations on these properties are intended to better correlate existing uses with General Plan land use designations and zoning and would not result in additional development.

Wastewater volume is calculated in the UWMP using potable water consumption in the service area, and therefore, because residential wastewater generation is not specified in the 2020 UWMP, it is assumed that the volume of wastewater generation associated with the new residential development allowed under the proposed Project is equal to approximately 90 percent of the indoor water use anticipated for such development. According to water demand factors included in the CalEEMod emissions model, future development built in accordance with the proposed Project is estimated to demand approximately 106 million gallons per year (approximately 65 million gallons for indoor use and 41 million gallons for outdoor use) or 325.0 af of potable water.⁴ According to the 2020 UWMP, approximately 4,219 af (3.77 mgd) of wastewater was generated in the ETWD service area in the 2019–2020 fiscal year. Wastewater volume is calculated in the UWMP using potable water consumption in the service area. The additional 290,141 gallons per day can be accommodated at the WRP and its current capacity of 5.54 mgd. Furthermore, the 1,196 units would replace existing urban uses that currently generate wastewater.

It should also be noted that the text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in impacts to utilities and service systems. Therefore, impacts to wastewater generation from any future projects developed in accordance with the proposed Project would be less than significant. No mitigation is required.

Threshold 4.11.4: 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. Waste from the new residential development allowed under the proposed Project would be required to comply with State and local solid waste reduction, diversion, and recycling policies and regulations. According to CalEEMod calculations, the additional residential development allowed on the Potential Housing Sites would generate 1,168.91 tons of solid waste per year. The nearest CR&R facility to the City is the Stanton Recycling and Transfer Facility. Currently, the Stanton Recycling and Transfer Facility permits up to 3,600 tons of waste per day. According to the most recent inspection, the Stanton Recycling and Transfer Facility daily tonnage log indicated that the maximum tonnage accepted since the most recent inspection at the landfill (July 25, 2022) was 1,798 tons. Therefore, the proposed Project would add a small amount of waste to the Stanton Recycling and Transfer Facility which would have adequate capacity to serve the proposed Project. Furthermore, the 1,196 housing units would replace existing urban uses, most of which currently generate solid waste.

⁴ $105,910,700 \text{ gallons} \times (1 \text{ af} / 325851 \text{ gallons}) = 325.0 \text{ af}$

The proposed text changes to the Noise and Land Use Elements and the introduction of the Mobility Element would not facilitate or entitle any physical development that would result in impacts to utilities and service systems. Therefore, impacts related to solid waste generation from any future projects developed in accordance with the proposed Project would be less than significant. No mitigation is required.

Threshold 4.11.5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. The proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites as well as amendments to the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses to either Community Facilities – Public/Institutional or Open Space districts. The amendments to the zoning and land use designations on these properties are intended to better correlate existing uses with General Plan land use designations and zoning and would not result in additional development.

Any future development would be required to comply with federal, State, and local requirements for solid waste. Solid waste disposal practices in California are governed by multiple federal, State, and local agencies that enforce legislation and regulations ensuring that landfill operations minimize impacts to public health and safety and the environment. The California Integrated Waste Management Act (AB 939) changed the focus of solid waste management from landfill to diversion strategies (e.g., source reduction, recycling, and composting). The purpose of the diversion strategies is to reduce dependence on landfills for solid waste disposal. AB 939 established mandatory diversion goals of 25 percent by 1995, 50 percent by 2000, and 75 percent by 2020. The City provides curbside recycling for both residential and commercial uses, as well as curbside residential green waste, which both count toward the City’s solid waste diversion rate. CalRecycle tracks and monitors solid waste disposal on a per-capita basis. Future residential projects allowed under the proposed zoning overlays would be required to comply with the City’s Construction and Demolition Ordinance. As stipulated by the CALGreen Code, future residential projects on the Potential Housing Sites would be required to divert a minimum of 65 percent of construction and demolition debris in order to obtain building permits. Future projects would be required to comply with existing and future statutes and regulations, including waste diversion programs mandated by City, State, and federal law. Therefore, the proposed Project would result in less than significant impacts with respect to federal, State, and local statutes and regulations related to solid wastes, and no mitigation is required.

4.11.7 Level of Significance Prior to Mitigation

The proposed Project would not result in potentially significant impacts related to utilities and service systems.

4.11.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures or mitigation measures are applicable to the proposed Project pertaining to utilities and service systems.

4.11.9 Cumulative Impacts

The purpose of this section is to evaluate any additional incremental impact that the proposed Project is likely to cause over and above the combined impacts of recently approved and proposed projects in Laguna Woods. The impact area used to assess potential cumulative utilities and service systems impacts is the City because the proposed Project would affect population and housing within Laguna Woods. The City has not seen any new housing development since completion of the San Sebastian development project in 2008. Therefore, the cumulative impacts associated with the proposed Project would only consider impacts from implementation of the proposed Project that would contribute to population and housing growth in the Project vicinity.

As stated above, the proposed Project includes the adoption of overlay zoning districts that would allow for residential development on the Potential Housing Sites as well as amendments to the land use designations and zoning on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses to either Community Facilities – Public/Institutional or Open Space districts. The amendments to the zoning and land use designations on these additional properties are intended to better correlate existing uses with General Plan land use designations and zoning and would not result in additional development. Any future projects implemented in accordance with the proposed zoning overlays would be required to adhere to the General Plan, provide required development impact fees, and comply with applicable development regulations pertaining to water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. Additionally, adequate water supply is available to accommodate the additional housing units allowed under the proposed Project. Therefore, adequate water supply would be available to accommodate future housing development on the Potential Housing Sites. Solid waste and wastewater generated by the new housing development allowed under the proposed Project could be accommodated with existing infrastructure, and would not lead to a significant increase that would alter the capacity of the existing solid waste and wastewater infrastructure set in place. Any future projects would be required to comply with existing and future statutes and regulations, including waste diversion programs mandated by City, State, and federal law. Therefore, the impacts from the proposed Project would not be considered cumulatively considerable.

4.11.10 Level of Significance After Mitigation

The proposed Project would have no significant impacts related to utilities and service systems.

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5.0 ALTERNATIVES

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant impacts of the project, and evaluate the comparative merits of the alternatives” (*State CEQA Guidelines*, Section 15126.6). This chapter identifies potential alternatives to the Laguna Woods General Plan and Zoning Code Update (proposed Project), evaluates the potential impacts of each alternative, and compares the potential impacts of each alternative against the proposed Project’s impacts, as required by CEQA.

Key provisions of the *State CEQA Guidelines* on alternatives (Section 15126.6[b] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR:

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly (15126.6[b]).
- The specific alternative of ‘no project’ shall also be evaluated along with its impact (15126.6[e][1]). The ‘no project’ analysis shall discuss the existing conditions at the time the Notice of Preparation is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (15126.6[e][2]).
- The range of alternatives required in an EIR is governed by the ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent) (15126.6[f]).
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (15126.6[f][2][A]).

- If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location (15126.6[f][2][B]).
- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (15126.6[f][3]).

Pursuant to the guidelines stated above, a range of alternatives to the proposed Project is considered and evaluated in this EIR. These alternatives were developed in the course of Project planning and environmental review. The discussion in this section provides:

1. A description and analysis of impacts for each of the alternatives considered;
2. Comparative analysis of each alternative that focuses on the potentially significant unavoidable environmental impacts of the proposed Project (the purpose of this analysis is to determine whether alternatives are capable of eliminating or reducing the significant environmental impacts of the Project to a less than significant level); and
3. Conclusions regarding the alternative's: (1) ability to avoid or substantially lessen the significant unavoidable impacts of the Project; (2) ability to attain the Project objectives (as stated below); and (3) merits compared to the merits of the proposed Project.

5.2 PROPOSED PROJECT

The proposed Project evaluated in this PEIR includes updates to the Circulation, Land Use, and Noise Elements of the City's General Plan, a renaming of the Circulation Element to the Mobility Element, and amendments to the City's Zoning Code. The Project is described in greater detail below.

5.2.1 General Plan Land Use Element

The proposed Project would not change the General Plan land use designations on any of the Potential Housing Sites. Instead, as discussed further below, the Project would apply one of four new residential overlay zoning districts on each of the Potential Housing Sites. The proposed Project would amend the land use designations on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses, which include 12 other sites (14 individual properties) that are owned by the City, the Golden Rain Foundation, and the El Toro Water District. Of these, the land use designations on 12 parcels would be changed from Commercial, Open Space, or Residential Community to Community Facilities. Land use designations on the other two properties would be changed from Residential Community and High Density Residential to Open Space. As described above, these minor administrative changes are intended to reflect the reality that these properties are currently being used as open space or community facilities and will continue to be used for those purposes for the foreseeable future.

5.2.2 General Plan Circulation Element

The proposed Project includes text changes to the existing General Plan Circulation Element and renames it to the Mobility Element. The Mobility Element has been designed to meet State law requirements for circulation elements. “Mobility” is purposefully used in this element’s title to emphasize the City’s commitment to maintaining a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. California Government Code Section 65302(b)(2)(B) defines “users of streets, roads, and highways” as bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. The Mobility Element does not propose any physical improvements such as new roads or expanded roads. The Mobility Element focuses on maintaining and coordinating the City’s balanced multi-modal transportation network.

5.2.3 General Plan Noise Element

The proposed Project would also update the noise contour maps in the Noise Element to reflect current noise conditions in the City as well as those anticipated under General Plan buildout.

5.2.4 Zoning Code Amendment

The proposed Project includes the adoption of four new overlay zoning districts that would allow for residential development on the Potential Housing Sites. Development standards would be established for each of the new overlay zoning districts. Of the 17 Potential Housing Sites, nine sites (Sites 1–8 and Site 15) would be included in the Residential High Density Overlay, which would allow residential development at densities between 30–50 dwelling units per acre (du/ac). Five sites (Sites 9–12 and Site 17) would be included in the Residential Medium Low Density Overlay, which would allow between 15–20 du/ac. Two sites (Sites 13 and 16) would be included in the Residential Low Density Overlay, which would allow between 8–10 du/ac, and Site 14 would be within the Residential Medium Density Overlay, which would allow between 20–30 du/ac.

The proposed Project would also amend the zoning districts on the Sites Proposed for Land Use Designation Changes and Rezoning to Reflect Existing Uses. The existing zoning districts on two sites (Sites 18 and 22) would be changed from Community Commercial to Community Facilities-Public/Institutional. Four sites (Sites 24–26 and Site 29) would be changed from Residential Community to Community Facilities-Public/Institutional. Four sites (Sites 21, 27, and 28) would be changed from Open Space-Recreation to Community Facilities-Public/Institutional. Lastly, Site 19 would be changed from Residential Community to Open Space-Passive and Site 20 would be changed from Residential Multifamily to Open Space-Recreation. As noted above, these minor administrative changes are intended to reflect the reality that these properties are currently being used as open space or community facilities and will continue to be used for those purposes for the foreseeable future.

5.2.5 Project Objectives

In conformance with *State CEQA Guidelines* Section 15124, the following primary objectives support the Project’s purpose, assist the Lead Agency in developing a reasonable range of alternatives to be evaluated in this PEIR, and ultimately aid the decision-makers in preparing findings and overriding considerations, if necessary. The Project’s purpose is to update the City’s General Plan and Zoning

Code to address the City's housing needs and meet State law requirements and reflect logical land use designations and zoning districts. The following Project objectives are provided to support this purpose:

1. **Enhanced Housing Choices.** The Project is intended to accommodate a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably priced housing for all income groups.
2. **Adequate Housing Supply.** The Project would amend the City's General Plan and Zoning Code to provide adequate potential housing sites with corresponding density to meet the City's Regional Housing Needs Assessment (RHNA) allocation of 997 housing units, inclusive of prior planning cycle carryover housing units. The Project would also include a 199-dwelling-unit buffer sufficient to accommodate the RHNA during the entire planning period given the requirements of the "no net loss" statute. The Project would accommodate the appropriate distribution of new multi-family housing throughout the City.
3. **Community Character, Health, and Safety.** The Project would permit well-designed in-fill development that protects and enhances the quality of life and character of established neighborhoods and promotes healthy and safe living environments.
4. **Multi-modal Transportation.** The Project would decrease reliance on the automobile and encourage active lifestyles through policies and in-fill development that increase the safety, convenience, and integration of multiple transportation modes.
5. **Minimization of Noise Sources.** The Project would minimize exposure of sensitive noise receptors to the detrimental effects of excessive noise from new development by incorporating noise considerations into land use planning decisions.

5.2.6 Significant Adverse Unavoidable Impacts of the Proposed Project

5.2.6.1 Greenhouse Gas Emissions

Based on the analysis results, the proposed Project would result in 5,933.1 metric tons of carbon dioxide equivalent per year (MT CO₂e/yr), which would exceed the scaled SCAQMD threshold of 975 MT CO₂e/yr. Additionally, the proposed Project would result in per service population emissions of 2.5 MT CO₂e/yr per service population, which exceeds the SCAQMD's scaled screening threshold of 1.6 MT CO₂e/yr per service population. However, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements, comply with the requirements of CEQA, and obtain all necessary clearances and permits. While Mitigation Measure GHG-1 would serve to reduce greenhouse gas (GHG) emissions associated with build out of the Project, GHG emission impacts would remain significant and unavoidable because compliance with future efficiency targets cannot be assured.

5.3 ALTERNATIVES INITIALLY CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION

Section 15126.6(c) of the State CEQA Guidelines suggests that EIRs identify any alternatives that were considered by the Lead Agency but were rejected during the scoping process and briefly explain the reasons underlying the Lead Agency's determination. In evaluating an appropriate range of alternatives to the proposed Project, an Alternate Development Areas Alternative and a No Project Alternative were considered and rejected by the City of Laguna Woods (City).

The following is a discussion of the Alternative Development Areas Alternative and the No Project Alternative considered during the environmental review process and the reasons they were not selected for detailed analysis in this Draft PEIR.

5.3.1 Alternative Development Areas Alternative

CEQA requires that the discussion of alternatives focus on alternatives to the Project or its location that are capable of avoiding or substantially lessening any significant effects of the Project. In considering alternative locations, the first question in the analysis is whether any of the significant effects of the Project would be avoided or substantially lessened by moving the Project to another location. Only locations that would avoid or substantially lessen any of the significant effects of the Project need to be considered for inclusion in the EIR (*State CEQA Guidelines* Section 15126.6[f][2][A]). The proposed Project is a General Plan and Zoning Update to accommodate the City of Laguna Woods (City) Regional Housing Needs Assessment (RHNA) allocation. The RHNA allocation is specific to the City and its jurisdiction, and assigns a certain amount of housing units for each jurisdiction to accommodate. The City does not have jurisdiction over areas outside of its boundaries. Laguna Woods is characterized by urban areas, including single-family and multifamily residential uses and small concentrations of commercial, office, open space, and community facilities uses. The City is unique in that nearly all of its existing residential uses are age-restricted for adults aged 55 years and older. Of the 13,386 dwelling units in the City of Laguna Woods, 12,736 are located in the gated community of Laguna Woods Village, which represents 80 percent of the City's total land area. Four other residential communities (Ivy Park at Laguna Woods (formerly The Regency), Ivy Park at Wellington (formerly Las Palmas), San Sebastian, and Whispering Fountains) provide an additional 650 dwelling units in the City. The City of Laguna Woods is built-out with existing land uses, the majority of which are located within Laguna Woods Village. Other than established residential, office, civic and commercial land uses, portions of the City are reserved for conservation and open space. There are few opportunities to locate additional residential units and providing the zoning overlay was the only viable option accommodating additional development intensity. In addition, the mitigation applied to the proposed Project and the significant unavoidable impact related to greenhouse gas emissions would apply to alternative development areas. Therefore, an alternative development area for the proposed Project is not possible, and is not considered further in this section.

5.3.2 No Project Alternative

In accordance with *State CEQA Guidelines* Section 15126.6, the purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed Project with the impacts of not approving the proposed Project. The No Project

Alternative would not provide accommodation for the City's RHNA allocation. The City's population would remain at existing levels because it is essentially built out. No alterations to the City would occur, and all existing residential development would generally remain in its current condition. None of the impacts of the proposed Project, adverse or beneficial, would occur. The City would not be able to meet its housing obligations as defined by the State RHNA allocations. The No Project Alternative would be the same as existing conditions, which were described in the environmental setting section for each environmental topic. Local jurisdictions are required by State law (Government Code Section 65580 et seq.) to plan for their fair share of projected housing construction needs in their region. Housing unit construction goals are set by the State Department of Housing and Community Development and allocated to cities through regional planning agencies such as the Southern California Association of Governments (SCAG). This is called the RHNA. Future housing need refers to the proportion of the region's future housing needs allocated to a community. Since 1969, California has required that all local governments (cities and counties) adequately plan to meet the housing needs of everyone in the community. California's local governments meet this requirement by adopting housing plans as part of their "general plan" (also required by the State). General plans serve as the local government's "blueprint" for how the city and/or county will grow and develop. In order to create a housing plan (or Housing Element) showing that it could meet the local housing needs, a jurisdiction must first know how much housing it must plan for. This is determined by a process called the RHNA.

The RHNA prepared by SCAG defines the housing unit goals for the region. The City's fair share for the planning period between October 1, 2021, and October 1, 2029, (the current adopted RHNA period) was established by SCAG at 997 units. The RHNA target number was based on projected household growth and the resulting need for construction of additional housing units allocated over an 8-year planning period (2021–2029). Housing Element law mandates that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law recognizes that in order for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for housing production. California's housing element law requires that each city and county develop local housing programs to meet its "fair share" of existing and future housing needs. If the City fails to implement its housing element or adopts one that is inadequate, a court can order the City to halt all development until an adequate element is adopted or order approval of specific affordable housing developments. Therefore, this alternative could result in the State taking over control of the City's Housing Element and implementing minimum zoning requirements to accommodate housing for a diversity of housing to meet the needs of multiple income categories. RHNA compliance by each jurisdiction has received significant oversight by the State Department of Housing and Community Development due to the ongoing housing crisis facing California. Therefore, a No Project Alternative is not possible, and is not considered further in this section.

5.4 ALTERNATIVE UNDER ANALYSIS

5.4.1 Reduced Density Alternative

5.4.1.1 Description

The Reduced Density Alternative would result in a 199-unit reduction of housing development capacity on the Potential Housing Sites. This alternative would reduce the potential residential development capacity from 1,196 dwelling units to 997 dwelling units, which could result in the City's population increasing by approximately 1,984 residents. This would represent an approximate 17 percent reduction in growth as compared to the Project. All mitigation measures applied to the Project (1,196 dwelling units) would still be required if the proposed zoning overlays were revised to allow for only 997 dwelling units.

5.4.1.2 Environmental Analysis

The Reduced Density Alternative would enable the future development of 997 housing units, which would allow the City to meet its Regional Housing Needs Assessment (RHNA) allocation of 997 housing units. The Reduced Density Alternative would eliminate the 199-dwelling-unit buffer intended to accommodate the RHNA during the entire planning period given the requirements of the "no net loss" statute. As such, the total housing units facilitated by the Reduced Density Alternative would be 997 as opposed to the 1,196 facilitated under the proposed Project.

Because the Reduced Density Alternative would ultimately result in the accommodation of fewer residential units as compared to the proposed Project, the Reduced Density Alternative would result in environmental impacts on aesthetics, air quality, energy, noise and vibration, population and housing, public services, recreation, transportation, and utilities and service systems to a lesser degree than the proposed Project. As the proposed Project's impacts on these resource areas are less than significant, the Reduced Density Alternative's impacts on these resource areas would also be less than significant.

However, the Reduced Density Alternative would still result in significant and unavoidable impacts to greenhouse gas emissions, though slightly lesser than the proposed Project, because compliance with future efficiency targets still could not be assured.

The elimination of 199 dwelling units from the proposed Project would result in the Reduced Density Alternative being inconsistent with the State RHNA statute requiring cities to maintain adequate sites to accommodate their unmet housing needs allocation at all times during the planning period ("no net loss"). As a result, the Reduced Density Alternative would result in a significant and unavoidable impact pertaining to **Threshold 4.5.2** in Section 4.5, Land Use and Planning, of the Draft PEIR, pertaining to conflict with an applicable land use plan, policy, or regulation. This impact would not be capable of mitigation as there would be no way to ensure "no net loss" whilst reducing the number of proposed dwelling units.

In summary, implementation of the Reduced Density Alternative would result in overall impacts that would be **less** than or, in the case of land use and planning, **greater** than the proposed Project.

5.4.1.3 Attainment of Project Objectives

The Reduced Density Alternative would be inferior to the proposed Project in meeting one of the Project objectives and would fail to meet another Project objective.

The Reduced Density Alternative would be inferior to the proposed Project in meeting Project Objective 1:

- **Enhanced Housing Choices.** The Project is intended to accommodate a variety of housing types to meet the needs of all Laguna Woods residents, creating opportunities for attainably priced housing for all income groups.

The reduction in housing units would decrease accommodation of a variety of housing types to meet the needs of all Laguna Woods residents.

The Reduced Density Alternative would not meet Project Objective 2:

- **Adequate Housing Supply.** The Project would amend the City's General Plan and Zoning Code to provide adequate potential housing sites with corresponding density to meet the City's Regional Housing Needs Assessment (RHNA) allocation of 997 housing units, inclusive of prior planning cycle carryover housing units. The Project would also include a 199-dwelling-unit buffer sufficient to accommodate the RHNA during the entire planning period given the requirements of the "no net loss" statute. The Project would accommodate the appropriate distribution of new multi-family housing throughout the City.

The Reduced Density Alternative would not include the 199-dwelling-unit buffer sufficient to accommodate the RHNA during the entire planning period given the requirements of the "no net loss" statute. Therefore, a Reduced Density Alternative is not environmentally superior to the proposed Project because it would result in a significant and unavoidable land use and planning conflict pertaining to failure to include the additional units to ensure "no net loss."

5.5 IDENTIFICATION OF THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of an Environmentally Superior Alternative among the proposed Project and the alternatives evaluated in an EIR. State CEQA Guidelines Section 15126.6(e)(2) provides that, if the No Project Alternative is the Environmentally Superior Alternative, then the EIR shall also identify an Environmentally Superior Alternative among the other alternatives and the proposed Project. Table 5.F provides, in summary format, a comparison of the level of impacts of the Reduced Density Alternative to the proposed Project, since this was the only alternative determined to be possible.

As shown in Table 5.F, below, all impacts under the Reduced Density Alternative would be less than the proposed Project, aside from impacts to land use and planning, which would be significant and unavoidable and greater than the proposed Project. The Reduced Density Alternative would result in reduced impacts on the environment because the Potential Housing Sites would be developed at a reduced density, thereby reducing most of the proposed Project's environmental impacts.

Table 5.F: Comparison of the Environmental Impacts of the Proposed Project and Project Alternatives

Impact Area	Proposed Project Impact with Mitigation (if any)	Reduced Density Alternative
Aesthetics	Less Than Significant	Less
Air Quality	Less Than Significant	Less
Energy	Less Than Significant	Less
Greenhouse Gas	Significant and Unavoidable	Less ¹
Land Use and Planning	Less Than Significant	Greater
Noise and Vibration	Less Than Significant	Less
Population and Housing	Less than Significant	Less
Public Services	Less than Significant	Less
Recreation	Less than Significant	Less
Transportation	Less Than Significant	Less
Utilities and Service Systems	Less than Significant	Less

¹ Impacts would continue to be significant and unavoidable; however, overall impacts would be less than the proposed Project.

However, the Reduced Density Alternative would either not meet the Project objectives or meet them to a lesser extent than the proposed Project. Specifically, the Reduced Density Alternative would not meet the RHNA requirement of ensuring “no net loss” as required by State law (Government Code Section 65580 et seq.), thereby causing a significant and unavoidable impact pertaining to a land use and planning inconsistency and failing to meet Project objectives.

As such, the proposed Project is the Environmentally Superior Alternative. With the exception of greenhouse gas emissions, implementation of the proposed Project would result in less than significant impacts on the environmental impact areas analyzed in this PEIR. In contrast, implementation of the Reduced Density Alternative would result in similar significant and unavoidable impacts relating to greenhouse gas emissions, and would not meet all of the proposed Project’s objectives. Further, implementation of the proposed Project would meet all of the identified Project objectives, including meeting the City’s RHNA requirement of 3,936 and its additional buffer of 199 units to ensure “no net loss” as required by State law (Government Code Section 65580 et seq.). Accordingly, it is determined that the proposed Project is the Environmentally Superior Alternative because implementation would result in the least environmental impacts while meeting all of the Project’s objectives.

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6.0 OTHER CEQA CONSIDERATIONS

Section 15126 of the *California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines)* requires that all phases of a project must be considered when evaluating its impact on the environment, including: planning, acquisition, development, and operation. This chapter discusses these CEQA considerations associated with the implementation of the proposed Laguna Woods General Plan and Zoning Code Update (proposed Project). According to Section 15126 of the *State CEQA Guidelines*, an Environmental Impact Report (EIR) must include the following as part of its analysis, as addressed in this chapter:

1. Significant short- and long-term environmental effects associated with project implementation (Section 6.1, Short-and Long-Term Implications);
2. Significant environmental effects due to wasteful, inefficient, or unnecessary consumption use of energy, or wasteful use of energy resources (Section 6.2, Energy Impacts);
3. Significant environmental effects that cannot be avoided if the proposed project is implemented (Section 6.3, Significant and Unavoidable Impacts);
4. Significant irreversible environmental changes that would result from implementation of the proposed project (Section 6.4, Significant Irreversible Environmental Changes); and
5. Growth-inducing impacts resulting from implementation of the proposed project (Section 6.5, Growth-Inducing Impacts).

6.1 SHORT- AND LONG-TERM IMPLICATIONS

Section 15126.2(a) of the *State CEQA Guidelines* requires that an EIR identify and focus on the significant effects of the proposed project on the environment. Specifically, Section 15126.2(a) states that an EIR shall:

Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause or risk exacerbating by bringing development and people into the area affected.

The proposed Project involves updates to the City of Laguna Woods (City) General Plan Circulation Element, Land Use Element, and Noise Element, the renaming of the Circulation Element to the Mobility Element, and amendments to the City's Zoning Code. The updates to the Land Use Element would establish Residential; High, Medium, Medium-Low and Low Density overlay zones which

could accommodate up to 1,196 dwelling units on the Potential Housing Sites. The updates to the Noise Element would update the noise contour maps to reflect current noise conditions in the City as well as those anticipated under General Plan build out. The text edits and renaming of the Circulation Element to the Mobility Element would focus on maintaining and coordinating the City's balanced multi-modal transportation network. The proposed Project would not include any physical changes or alterations to ecological systems. The proposed Project would induce changes in population distribution, population concentration, and the human use of land due to the residential zoning overlays that would allow for denser housing on the Potential Housing Sites. However, the proposed Project itself would not result in any new or expanded development. Although the proposed Project would indirectly bring potential development or population into the City, the proposed Project would not result in any significant environmental impacts because future development allowed under the proposed zoning overlays would accommodate planned regional housing growth included in the Southern California Association of Governments (SCAG) Regional Housing Needs Assessment (RHNA). The proposed Project would not include or facilitate any new physical improvements or development. Therefore, implementation of the proposed Project would not create potential short-term or long-term direct or indirect significant effects.

6.2 ENERGY IMPACTS

According to Section 15126.2(b) of the *State CEQA Guidelines*, “[i]f analysis of the project’s energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use.”

As described in Section 4.6, Energy, the proposed Project would not result in significant impacts related to energy use. The proposed Project would not, in and of itself entitle, propose, or otherwise require the construction of new development or rehabilitation of existing development. Construction activities associated with the development of additional housing units could occur through the horizon year 2045, which would cause short-term emissions of criteria air pollutants. Transportation energy represents the largest energy use during construction and would occur from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction worker vehicles that would use petroleum fuels (e.g., diesel fuel and/or gasoline). Project construction would have a negligible effect on local and regional energy supplies. Furthermore, impacts related to energy use during construction would be temporary and relatively small in comparison to Orange County’s overall use of the State’s available energy resources. In addition, compliance with State regulations would reduce the inefficient, wasteful, or unnecessary consumption of energy.

Operational activities associated with the additional housing units would result in energy demand associated with natural gas use, electricity consumption, and fuel used for vehicle trips. Operation of the proposed Project would negligibly increase the annual natural gas consumption in Orange County by approximately 0.04 percent. Electrical and natural gas demand associated with Project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. In regard to vehicle trips associated with the proposed Project, gasoline demand generated by vehicle trips would be a minimal fraction of gasoline and diesel fuel consumption in Orange County. The text changes in the Land Use Element would not facilitate or

entitle any physical development that would result in energy impacts. The text changes in the Noise Element represent a planning action intended to comply with State law and to reflect current conditions. The Mobility Element does not propose any physical improvements such as new roads or expanded roads that could have a potential impact on public services and utilities. Therefore, impacts to energy would be less than significant, and no mitigation is required.

6.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2(c) of the *State CEQA Guidelines* requires that an EIR describe any significant impacts that cannot be avoided. Specifically, Section 15126.2(c) states that an EIR shall:

Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.

Chapter 1.0, Executive Summary, of this Program EIR (PEIR) contains a detailed summary that identifies the proposed Project's environmental impacts as compared to existing conditions, proposed mitigation measures, and the level of significance of any impacts after mitigation. The following is a summary of the impacts that are considered significant, adverse, and unavoidable after all mitigation is applied. These impacts are also described in detail in Chapter 4.0, Existing Environmental Setting, Environmental Analysis, Impacts, and Mitigation Measures.

6.3.1 Greenhouse Gas Emissions

The proposed Project would exceed the scaled South Coast Air Quality Management District (SCAQMD) Service Population greenhouse gas (GHG) threshold. Thus, Project-related emissions would have a potentially significant impact related to the generation of GHG emissions.

Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits. While individual projects accommodated under the proposed Project may not exceed SCAQMD thresholds of significance and/or statewide GHG reduction targets, the likely scale and extent of build out associated with the proposed Project would likely continue to exceed the SCAQMD thresholds for some projects. As such, implementation of Mitigation Measure (MM) GHG-1 would require a project-specific assessment of potential GHG impacts and implementation of feasible mitigation measures to reduce GHG emissions. While MM GHG-1 would serve to reduce GHG emissions associated with build out of the Project, GHG emissions impacts would remain significant and unavoidable because compliance with future efficiency targets cannot be assured. As such, the Project's GHG emissions impacts would be significant and unavoidable.

6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2 (d) of the *State CEQA Guidelines* requires that an EIR consider and discuss significant irreversible changes that would be caused by implementation of the proposed Project. Specifically, Section 15126.2 (d) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if the proposed consumption of resources is not justified, if the project would involve a large commitment of nonrenewable resources, or if the project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the Project.

The proposed amendments to the General Plan Noise Element are considered planning/policy actions and do not include or facilitate any physical improvements or development. The commitment of limited, slowly renewable, and nonrenewable resources required for construction and operation of future development would limit the availability of these resources for future generations or for other uses during the life of the Project. However, the proposed Project would not result in an irreversible commitment of these resources, as the proposed Project would not, in itself, result in any direct physical improvements or development. Therefore, the proposed Project would not result in a commitment of limited, slowly renewable, and nonrenewable resources, and thus, would not result in significant irreversible changes.

6.5 GROWTH-INDUCING IMPACTS

Sections 15126(d) and 15126.2(e) of the *State CEQA Guidelines* require that an EIR analyze growth-inducing impacts and state that an EIR should discuss the ways in which the proposed Project could foster economic or population growth or construction of additional housing, either directly or indirectly, in the surrounding environment. *State CEQA Guidelines* Section 15126.2(d) also requires a discussion of the characteristics of projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. A project that meets any of these criteria may be considered growth-inducing. To address these issues, potential growth-inducing effects were examined through analysis of the following questions:

- Would the project remove obstacles to, or otherwise foster, population growth (e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development)?
- Would the project foster economic growth?
- Would approval of the project involve some characteristic that may encourage and facilitate other activities that could significantly affect the environment?

It should be noted that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment (CEQA Guidelines, Section 15126.2(d)). This

issue is presented to provide additional information on ways in which the proposed Project could contribute to significant changes in the environment beyond the direct consequences of implementing the proposed Project as described in earlier sections of this PEIR.

Approval of the amendments to the General Plan Circulation Element, Land Use Element, and Noise Element, the renaming of the Circulation Element to the Mobility Element, and the zoning amendment are considered policy/planning actions and do not include or facilitate any physical improvements or development. The proposed zoning overlays would allow for the development of residential uses on the Potential Housing Sites. Future development that would be built in accordance with these amendments would accommodate planned regional housing growth included in SCAG's RHNA. Future residential uses would replace existing land uses and not induce additional growth or require the extension of roads or other infrastructure because the roads and infrastructure are already in place with adequate capacity to serve the Potential Housing Sites. Thus, any public service or utility demand associated with the proposed Project would not be substantial because it would be located within an area capable of supporting it. The proposed text changes to the Noise Element and the Circulation Element, as well as the proposed name change from the Circulation Element to the Mobility Element, would not facilitate or entitle any physical development that would result in impacts to population growth. Refer to Section 4.7, Population and Housing, for more details. For the reasons stated above, the proposed Project is not considered to be growth-inducing, and therefore, the proposed Project would not result in any growth-inducing impacts.

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7.0 MITIGATION MONITORING AND REPORTING PROGRAM

7.1 MITIGATION MONITORING REQUIREMENTS

Public Resources Code (PRC) Section 21081.6 (enacted by the passage of Assembly Bill 3180) mandates that where significant effects have been identified, the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes that have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.
- The lead agency shall specify the location and custodian of the documents or other materials that constitute the record of proceedings upon which its decision is based.
- A public agency shall provide measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents that address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
- Prior to the close of the public review period for a Draft Program Environmental Impact Report (PEIR), a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either (1) submit to the lead agency complete and detailed performance objectives for mitigation measures that would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or (2) refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures that mitigate impacts to resources that are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance with that requirement by a responsible agency or agency having jurisdiction over natural resources affected by a project shall not limit the authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

7.2 MITIGATION MONITORING PROCEDURES

This Mitigation Monitoring and Reporting Program has been prepared in compliance with PRC Section 21081.6. It describes the requirements and procedures to be followed by the City of Laguna Woods (City) to ensure that all mitigation measures adopted as part of the proposed Laguna Woods General Plan and Zoning Update (proposed project) will be carried out as described in the Final PEIR.

Table 7.A, below, lists the mitigation measures specified in the Draft PEIR and identifies the party or parties responsible for their implementation and monitoring. Table 7.A only includes resources that were evaluated in the Draft PEIR.

**Table 7.A: Laguna Woods General Plan and Zoning Update
Mitigation Monitoring and Reporting Program**

No.	Mitigation Measure	Timing of Completion	Responsible Party	Completion Date and Team Member Initials
4.4 GREENHOUSE GAS EMISSIONS				
MM GHG-1	<p>Prior to discretionary approval by the City of Laguna Woods (City) for residential development projects subject to California Environmental Quality Act (CEQA) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project-related greenhouse gas (GHG) impacts to the City for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (SCAQMD) methodology. If project-related GHG emissions exceed applicable SCAQMD thresholds of significance and/or statewide GHG reduction targets, the City of Laguna Woods shall require that applicants for new development projects incorporate mitigation measures to reduce GHG emissions. Mitigation measures could include, but are not limited, to energy efficiency measures, water conservation and efficiency measures, solid waste measures, and transportation and motor vehicles measures. The identified measures shall be included as part of the conditions of approval.</p>	<p>Prior to discretionary approval by the City of Laguna Woods for residential development projects subject to California Environmental Quality Act (CEQA) review</p>	Project applicants	
4.6 NOISE				
MM N-1	<p>Prior to discretionary approval by the City of Laguna Woods (City), residential development projects subject to California Environmental Quality Act (CEQA) review (i.e., nonexempt projects) would be required to incorporate the following conditions:</p> <ul style="list-style-type: none"> • Prior to the issuance of building permits, the applicant shall submit a final acoustical report consistent with the requirements of the California Building Standards Code or City policy, provided that City policy is no less effective than the California Building Standards Code. <ul style="list-style-type: none"> ○ The final acoustical report shall describe in detail the noise environment and mitigation measures necessary to achieve compliance with applicable noise standards. The report shall also describe and depict the locations of the acoustical barriers and design features of the structures required to satisfy the exterior and interior noise standards along with satisfactory evidence, which 	<p>Prior to discretionary approval by the City of Laguna Woods for residential development projects subject to California Environmental Quality Act (CEQA) review</p>	Project applicants	

**Table 7.A: Laguna Woods General Plan and Zoning Update
Mitigation Monitoring and Reporting Program**

No.	Mitigation Measure	Timing of Completion	Responsible Party	Completion Date and Team Member Initials
	<p>indicates that the sound attenuation measures specified in the final acoustical report, have been incorporated into the design of the project. Noise level calculations shall be provided using the Community Noise Equivalent Level (CNEL) noise scale.</p> <ul style="list-style-type: none"> • The applicant shall incorporate the requirements of the City's Noise Ordinance as a note on the grading plan cover sheet, for review and approval by the City. • The applicant shall incorporate the following measures as a note on the grading plan cover sheet: <ul style="list-style-type: none"> ○ Construction equipment, fixed or mobile, shall be maintained in proper operating condition with approved noise mufflers. ○ Construction staging areas shall be located away from off-site receptors and occupied buildings on site during the later phases of project development. ○ Stationary equipment shall be placed such that emitted noise is directed away from residential areas to the greatest extent feasible. ○ Construction access routes shall be selected to minimize truck traffic near existing residential uses where reasonably feasible. 			

8.0 LIST OF PREPARERS

8.1 AGENCY REVIEWERS

City of Laguna Woods

The following individuals reviewed and provided input on the Draft Program Environmental Impact Report (PEIR) and Technical Reports:

- Rebecca Pennington, Development Administrator (former, through October 2023)
- Christopher Macon, City Manager

8.2 DRAFT PEIR PREPARERS

LSA

The following individuals were involved in the preparation of this Draft PEIR:

- Ashley Davis, Principal in Charge
- Ryan Bensley, Environmental Principal
- Steve Letterly, Senior Environmental Planner/Project Manager
- Scott Vurbeff, Associate/Project Manager (formerly LSA)
- Cara Carlucci, Senior Air Quality Specialist
- JT Stephens, Principal Air/Noise Specialist
- Ambarish Mukherjee, Transportation Principal
- Casey Tibbet, M.A., Associate/Cultural Resources Manager
- Tamar Gharibian, Assistant Environmental Planner (formerly LSA)
- Olivia Mattair, Assistant Environmental Planner
- Matt Phillips, Graphics Technician
- Meredith Canterbury, Senior GIS Specialist
- Lauren Johnson, Technical Editor
- Chantik Virgil, Senior Word Processor

8.3 TECHNICAL REPORT PREPARERS

The following individuals were involved in the preparation of the technical reports in support of this Draft PEIR. The nature of their involvement is summarized below.

LSA

The following individual was involved in the preparation of the Construction Emissions Calculations:

- Cara Carlucci, Senior Air Quality Specialist

The following individual was involved in the preparation of the *Historic-Period Built Environment Sensitivity Study for the Laguna Woods General Plan and Zoning Code Update, Laguna Woods, California*:

- Casey Tibbet, M.A., Associate/Cultural Resources Manager

The following individual was involved in the preparation of the *City of Laguna Woods General Plan and Zoning Code Update - Vehicle Miles Traveled Analysis*:

- Ambarish Mukherjee, P.E., AICP

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Southern California Edison (SCE). 2019. Southern California Edison's Service Area. Website: https://download.newsroom.edison.com/create_memory_file/?f_id=5cc32d492cfac24d21aecf4c&content_verified=True (accessed August 26, 2022).

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APPENDIX A

NOP COMMENT LETTERS

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PUBLIC NOTICE/NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT

Project: Laguna Woods General Plan and Zoning Code Update

Lead Agency: City of Laguna Woods

Project Applicant: City of Laguna Woods

The City of Laguna Woods (City) is preparing a Program Environmental Impact Report (EIR) addressing potential environmental impacts associated with a proposed update to its General Plan and Zoning Code (proposed project). The purpose of this notice is to: (1) serve as a Notice of Preparation (NOP) of an EIR pursuant to the State California Environmental Quality Act (CEQA) Guidelines Section 15082; (2) advise and solicit comments and suggestions regarding the scope and content of the EIR to be prepared for the proposed project; and, (3) provide notice of the public scoping meeting.

PROJECT DESCRIPTION: The proposed project would:

- Create the following four new overlay zoning districts that allow housing development:
 - Residential High Density Overlay – would allow 30 to 50 dwelling units per acre
 - Residential Medium Density Overlay – would allow 20 to 30 dwelling units per acre
 - Residential Medium-Low Density Overlay – would allow 15 to 20 dwelling units per acre
 - Residential Low Density Overlay – would allow 8 to 10 dwelling units per acre
 Creation of the new overlay zoning districts also includes the creation of development standards for each.
- Rezone 17 properties (a total of 18 parcels) to allow housing development in addition to the uses already allowed under the existing zoning on those properties. This action would accommodate the City’s 6th Cycle Regional Housing Needs Assessment (RHNA) housing needs allocation. The City plans to apply one of the four new overlay zoning districts to each parcel; no change in General Plan land use designation is proposed. See summary table below.
- Change the General Plan land use designation and rezone 12 properties (a total of 14 parcels) to better correlate existing uses with land use designations and zoning. See summary table below.
- Update the City’s General Plan Circulation Element and Noise Element to ensure internal consistency with the City’s General Plan Housing Element, update background and existing condition information, update the identification of priority issues, update goals and policy objectives, and make other changes intended to modernize the documents while also promoting clarity and ease of use.

Site [Existing Use / Assessor’s Parcel Number (APN) / Address]	Existing General Plan Land Use Designation	Proposed General Plan Land Use Designation	Existing Zoning District	Proposed Overlay Zoning District or Zoning District
Town Centre Vacant Lot 616-012-29 N/A (East of 24331 El Toro Road)	Commercial	(No Change)	Community Commercial	Residential High Density Overlay
Pacific Hills Calvary Chapel Parking Lot 621-131-38 24481 Moulton Parkway	Commercial	(No Change)	Professional & Administrative Office	Residential High Density Overlay
Rossmoor Electric 621-131-21 24351 Moulton Parkway	Commercial	(No Change)	Community Commercial	Residential High Density Overlay
Saddleback Golf Cars 621-131-26 23252 Via Campo Verde	Commercial	(No Change)	Community Commercial	Residential High Density Overlay
Laguna Woods Self Storage 616-012-19 24151 Moulton Parkway	Commercial	(No Change)	Community Commercial	Residential High Density Overlay

Site [Existing Use / Assessor's Parcel Number (APN) / Address]	Existing General Plan Land Use Designation	Proposed General Plan Land Use Designation	Existing Zoning District	Proposed Overlay Zoning District or Zoning District
Animal Hospital 616-012-03 24271 El Toro Road	Commercial	(No Change)	Community Commercial	Residential High Density Overlay
PS Business Park (excludes Jack-in-the-Box) 616-021-30 23582 Moulton Parkway	Commercial	(No Change)	Community Commercial	Residential High Density Overlay
Smart Parke 621-211-09 24334 El Toro Road	Commercial	(No Change)	Community Commercial	Residential High Density Overlay
McCormick & Son Mortuary 621-091-016 25002 Moulton Parkway	Commercial	(No Change)	Community Commercial	Residential Medium-Low Density Overlay
Lutheran Church of the Cross 616-041-01 24231 El Toro Road	Community Facilities	(No Change)	Community Facilities-Private	Residential Medium-Low Density Overlay
Geneva Presbyterian Church 616-191-05 & 616-191-06 24301 El Toro Road	Community Facilities	(No Change)	Community Facilities-Private	Residential Medium-Low Density Overlay
Saint Nicholas Catholic Church 621-121-11 24252 El Toro Road	Community Facilities	(No Change)	Community Facilities-Private	Residential Medium-Low Density Overlay
Temple Judea 621-121-18 24512 Moulton Parkway	Community Facilities	(No Change)	Community Facilities-Private	Residential Low Density Overlay
Laguna Country United Methodist Church 621-121-23 24442 Moulton Parkway	Community Facilities	(No Change)	Community Facilities-Private	Residential Medium Density Overlay
Medical Building in Town Centre 616-012-24 24331 El Toro Road	Commercial	(No Change)	Professional & Administrative Office	Residential High Density Overlay
Willow Tree Center East 621-121-30 24260 El Toro Road	Commercial	(No Change)	Community Commercial	Residential Low Density Overlay
Helm Center 621-091-15 24902 Moulton Parkway	Commercial	(No Change)	Professional & Administrative Office	Residential Medium-Low Density Overlay
City of Laguna Woods - City Hall 621-121-29 24264 El Toro Road	Commercial	Community Facilities	Community Commercial	Community Facilities-Public/Institutional
City of Laguna Woods - Santa Vittoria Open Space 616-351-06 N/A (West of San Remo & Santa Vittoria)	Residential Community	Open Space	Residential Community	Open Space-Passive
Golden Rain Foundation - Garden Center #1 616-021-18 23742 Moulton Parkway	High Density Residential	Open Space	Residential Multifamily	Open Space-Recreation
El Toro Water District - Rossmoor No. 1 Dam 616-021-33 23600 Moulton Parkway	Open Space	Community Facilities	Open Space-Recreation	Community Facilities-Public/Institutional
El Toro Water District - R-1 & R-2 Reservoirs 616-012-02 24141 Moulton Parkway	Commercial	Community Facilities	Community Commercial	Community Facilities-Public/Institutional
El Toro Water District - Oso Lift Station	Open Space	Community Facilities	Open Space-Passive	Community Facilities-Public/Institutional

Site [Existing Use / Assessor's Parcel Number (APN) / Address]	Existing General Plan Land Use Designation	Proposed General Plan Land Use Designation	Existing Zoning District	Proposed Overlay Zoning District or Zoning District
622-071-21 N/A (Intersection of El Toro Road & Aliso Creek Road)				
El Toro Water District - Pump Station P-4 & Reservoir R-4 621-201-06 & 621-201-07 N/A (off Calle Sonora Oeste, behind buildings)	Residential Community	Community Facilities	Residential Community	Community Facilities-Public/Institutional
El Toro Water District - Pump Station P-3 & Reservoir R-3 622-061-11 N/A (North of Avenida Sosiega & Bahia Blanca West)	Residential Community	Community Facilities	Residential Community	Community Facilities-Public/Institutional
El Toro Water District - Gate 11 Lift Station 616-351-04 N/A (San Remo & Santa Vittoria)	Residential Community	Community Facilities	Residential Community	Community Facilities-Public/Institutional
El Toro Water District - Recycled Water Treatment Plant 616-021-03 23542 Moulton Parkway	Open Space	Community Facilities	Open Space-Recreation	Community Facilities-Public/Institutional
El Toro Water District - Northline Sewage Lift Station 616-021-05 & 616-021-35 23201 Ridge Route Drive	Open Space	Community Facilities	Open Space-Recreation	Community Facilities-Public/Institutional
El Toro Water District - Aliso Creek Lift Station 621-101-18 24091 Avenida Sevilla	Residential Community	Community Facilities	Residential Community	Community Facilities-Public/Institutional

Discretionary Actions. Required discretionary actions associated with the proposed project include the following: certification of the EIR; approval of updates to the General Plan Land Use Element; approval of updates to the General Plan Noise Element; and, approval of updates to the Zoning Code.

PROPOSED PROJECT LOCATION: The City of Laguna Woods is located in the southern portion of Orange County within Southern California. Given that the City's General Plan addresses policy issues throughout the City, the project area includes all lands within the City's boundaries. The map below and table provided immediately prior to this paragraph show the locations of all affected properties.

POTENTIAL ENVIRONMENTAL IMPACTS: The EIR will examine potential environmental impacts of the proposed project in relation to the following Environmental Analysis categories: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, and Utilities and Service Systems, and Wildfire. These categories reflect the probable environmental effects of the proposed project and are subject to change based on the analysis conducted as part of the EIR.

The EIR will also identify appropriate and feasible mitigation measures, if necessary, for each of the environmental impacts listed above. Although the proposed project is not anticipated to result in impacts related to Agriculture and Forestry Resources, Biological Resources, Geology and Soils, Hydrology and Water Quality, and Mineral Resources, these topics will be briefly discussed in the EIR. An Initial Study has not been prepared for the proposed project and is not required pursuant to CEQA Guidelines Section 15063.

PROJECT SCOPING PROCESS: Circulation of this Notice of Preparation (NOP) starts a 30-day public review and comment period on the scope of the EIR that begins on **August 1, 2022**, and ends on **August 30, 2022**, at 5:00 p.m. All interested parties, including the public, responsible agencies, and trustee agencies, are invited to provide comments and input on

the scope and content of the environmental analysis to be addressed in the EIR. Responsible and trustee agencies should provide comments and input related to the agencies' respective areas of statutory responsibility. Comments received during the scoping period will be considered during the preparation of the EIR. Public agencies and interested parties will have an additional opportunity to comment on the proposed project during the 45-day public review period to be held after the publication and circulation of the EIR.

Address Comments To

City of Laguna Woods
Attn: General Plan and Zoning Code Update
24264 El Toro Road
Laguna Woods, CA 92637

or via e-mail to:

cityhall@cityoflagunawoods.org

(please reference "General Plan and Zoning Code Update")

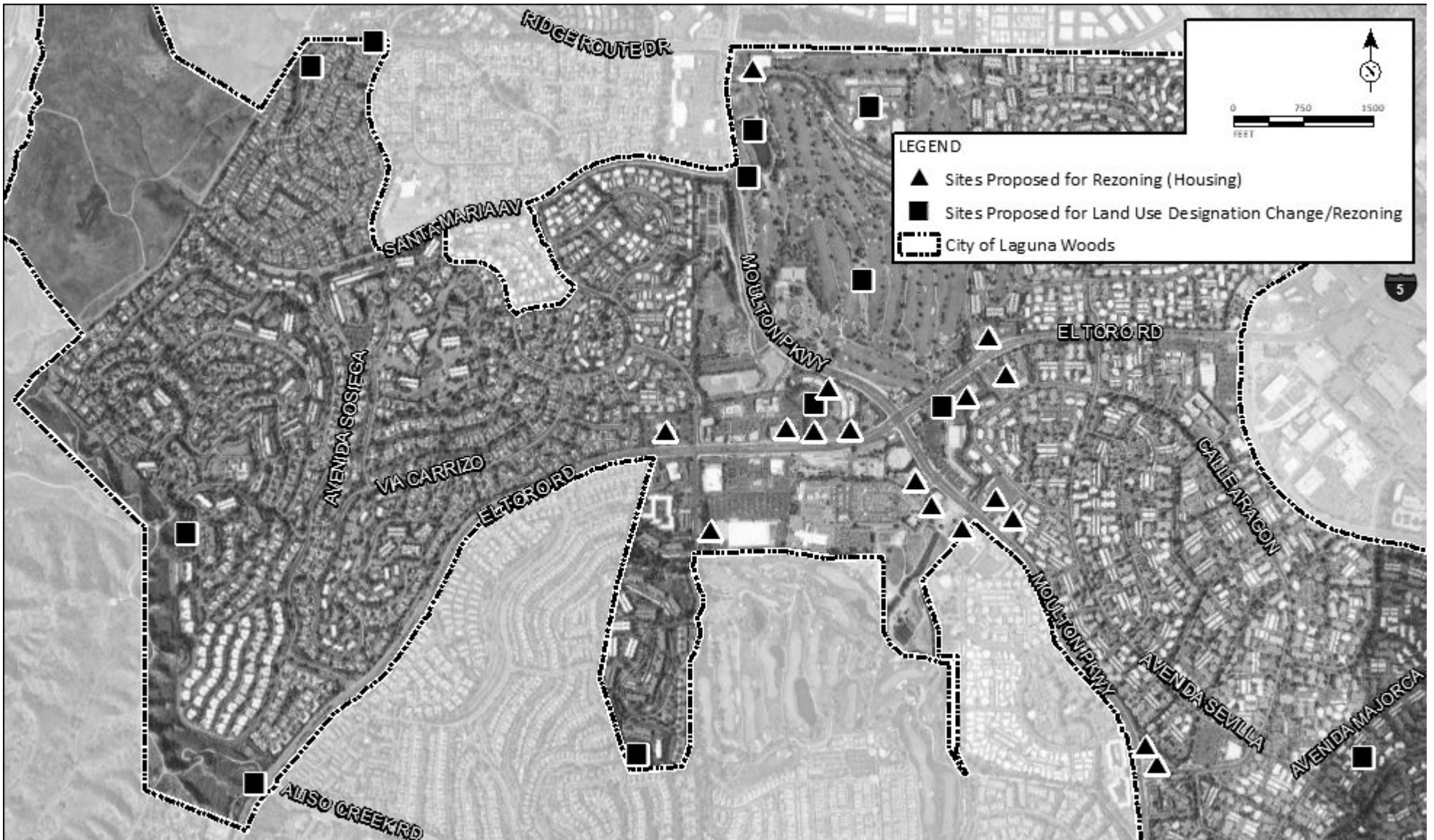
SCOPING MEETING: The City will conduct a public scoping meeting in order to present the proposed project and the EIR process and provide direction to the public on comments. The City encourages and invites all interested parties to participate in the following public scoping meeting in order to learn more about the project, ask questions, and submit comments.

Date/Time: Tuesday, August 16, 2022 at 2 p.m.

Location: Laguna Woods City Hall, 24264 El Toro Road, Laguna Woods, CA 92637. Participation will also be possible via telephone or computer. Instructions for participating remotely will be posted 72 hours prior to the public scoping meeting at Laguna Woods City Hall (address above) and www.cityoflagunawoods.org.

For more information, please contact Rebecca M. Pennington, Development Programs Analyst, City of Laguna Woods, at (949) 639-0561 or rpennington@cityoflagunawoods.org.

Map of Affected Properties





AFFILIATED AGENCIES

Orange County
Transit District

Local Transportation
Authority

Service Authority for
Freeway Emergencies

Consolidated Transportation
Service Agency

Congestion Management
Agency

August 29, 2022

Ms. Rebecca M. Pennington
Development Programs Analyst
City of Laguna Woods
24264 El Toro Road
Laguna Woods, CA 92637

Subject: **Notice of Preparation of a Draft Program Environmental Impact Report for the Laguna Woods General Plan and Zoning Code Update**

Dear Ms. Pennington:

Thank you for providing the Orange County Transportation Authority (OCTA) with the Notice of Preparation for the Laguna Woods General Plan and Zoning Code Update (Project) and keeping OCTA apprised of the Project. Please continue to coordinate with OCTA to maintain consistency between the Circulation Element and the Orange County Master Plan of Arterial Highways.

Throughout the development of this project, we encourage communication with OCTA on any matters discussed herein. If you have any questions or comments, please contact me at (714)-560-5907 or at dphu@octa.net.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Phu', with a horizontal line extending to the right.

Dan Phu
Manager, Environmental Programs

DEPARTMENT OF TRANSPORTATION

DISTRICT 12

1750 EAST FOURTH STREET, SUITE 100

SANTA ANA, CA 92705

PHONE (657) 328-6000

FAX (657) 328-6522

TTY 711

www.dot.ca.gov/caltrans-near-me/district12

*Making Conservation
a California Way of Life.*

August 30, 2022

Mr. Christopher Macon
City Manager
City of Laguna Woods
24264 El Toro Road
Laguna Woods, CA 92637

File: IGR/CEQA
SCH#: 2022080022
12-ORA-2022-02039
SR 133, PM R4.534-R6.548
I-5, PM 17.821-19.386
SR 73, PM 14.819-16.282

Dear Mr. Macon,

Thank you for including the California Department of Transportation (Caltrans) in the review of the Notice of Preparation for the Laguna Woods General Plan and Zoning Code Update. The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment.

The project proposes a variety of actions which would accommodate the City's 6th Cycle Regional Housing Needs Assessment (RHNA) housing needs allocation. In addition, the project would update the City's General Plan Circulation Element and Noise Element to ensure internal consistency with the City's General Plan Housing Element. Regional access to the project area is provided by State Route 133 (SR 133), Interstate 5 (I-5), and State Route 73 (SR 73). Caltrans is a responsible agency for this project and upon review, we have the following comments:

Transportation Planning

1. Caltrans recognizes our responsibility to assist communities of color and underserved communities by removing barriers to provide a more equitable transportation system for all.

The Department firmly embraces racial equity, inclusion, and diversity. These values are foundational to achieving our vision of a cleaner, safer, and more accessible and more connected transportation system.

Please consider including a discussion on equity in General Plan Element updates.

2. Caltrans supports projects which provide a diversity of housing choices and destinations accessible by Active Transportation (i.e. bicycle and pedestrian) and transit users. Consider providing a discussion about the City's multimodal mobility strategies relating to transit bus and rail services as well as active transportation for local and regional connectivity. Improving multimodal

"Provide a safe and reliable transportation network that serves all people and respects the environment"

connections to housing will encourage future residents, visitors, and workers in the city to utilize all modes of transportation.

3. Increased density can have traffic impacts. Consider opportunities to encourage multimodal transportation and mode shifts through the planning and implementation of high-quality Complete Streets that are safe and accessible for people of all ages and abilities. Encouraging the use of transit in the proposed plan may lead to reduction in congestion
4. Consider discussion about wayfinding signage to transit stops within the project vicinity and local roadways.
5. Any pedestrian facility enhancements from future housing development projects that are within Caltrans' Right of Way will need to comply with Caltrans Design Information Bulletin (DIB) 82-06. The aforementioned DIB can be found here: <https://dot.ca.gov/-/media/dot-media/programs/design/documents/dib82-06-ally.pdf>
6. According to Government Code 65302, "upon the next revision of the Housing Element on or after January 1, 2020, the Safety Element shall be reviewed and updated as necessary to identify residential developments in any hazard areas identified in the Safety Element that do not have at least two emergency evacuation routes."

Safety elements are also now required to include more information about wildfire risks in the community and how to improve wildfire safety. As well as identifying new information related to flood hazards and climate adaptation and resiliency strategies applicable to the city.

For further information regarding required background information and policy program guidance for Safety Element updates, please see <https://leginfo.legislature.ca.gov>.

7. Safety is one of Caltrans' strategic goals. We are striving for more equitable outcomes for the transportation network's diverse users. To achieve these ambitious goals, we will pursue meaningful collaboration with our partners.

We encourage the implementation of new technologies, innovations, and best practices that will enhance the safety on the transportation network. These pursuits are both ambitious and urgent, and their accomplishment involves a focused departure from the status quo as we continue to institutionalize safety in all our work.

8. Please consider including a discussion on incorporating designated areas/parking for freight delivery, package, and transportation network company's pickup and drop-off.

9. Please consider including a discussion on potential impacts to the circulation element from freight traveling into, from and/or through the City, as a result of the General Plan updates.

Traffic Impact Study

10. New developments resulting from the City's Housing Element update should provide a Vehicle Miles Traveled (VMT) based Traffic Impact Study (TIS). Please use the Governor's Office of Planning and Research Guidance to identify VMT related impacts.
11. The TIS may also need to identify the future project's near-term and long-term safety or operational issues, on or adjacent to any existing or proposed State facilities.

Encroachment Permit

12. Any project work proposed in the vicinity of the State Right-of-Way (ROW) would require an encroachment permit and all environmental concerns must be adequately addressed. If the environmental documentation for the project does not meet Caltrans's requirements for work done within State ROW, additional documentation would be required before approval of the encroachment permit. Please coordinate with Caltrans to meet requirements for any work within or near State ROW. For specific details for Encroachment Permits procedure, please refer to the Caltrans's Encroachment Permits Manual at:
<http://www.dot.ca.gov/hq/traffops/developserv/permits/>

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to contact Joseph Jamoralin at (657) 328-6276 or Joseph.Jamoralin@dot.ca.gov

Sincerely,



SCOTT SHELLEY
Branch Chief, Regional-IGR-Transit Planning
District 12



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



August 30, 2022

Christopher Macon
City Manager
City of Laguna Woods
24264 El Toro Road
Laguna Woods, CA 92637
CMacon@cityoflagunawoods.org

Subject: City of Laguna Woods General Plan and Zoning Code Update (Project), Notice of Preparation (NOP), SCH #2022080022

Dear Mr. Macon:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) of a draft programmatic environmental impact report (PEIR) from the City of Laguna Woods (City) for the Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Christopher Macon, City Manager
City of Laguna Woods
August 30, 2022
Page 2 of 5

under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: City of Laguna Woods (City)

Objective: The objective of the Project is to prepare an update to parts of the City's General Plan and Zoning Code.

Key project components are outlined below:

Overlay Zoning Districts: creating new overlay districts to increase housing density.

Rezoning: rezoning of 17 properties to allow housing development in addition to the uses already allowed under existing zoning.

Change in General Plan Land Use Designation: rezoning 12 properties to better correlate existing uses with land use designations and zoning.

Circulation and Noise: updating the City's General Plan Circulation Element and Noise Element to ensure internal consistency with the City's General Plan Housing Element, including background and existing condition information, identification of priority issues, goals and policy objectives, and other changes intended to modernize the documents.

Location: The Project encompasses the City of Laguna Woods, which is located in the southern portion of Orange County. Given that the City's General Plan addresses policy issues throughout the City, the Project area includes all lands within the City's boundaries. The City is surrounded by Laguna Hills on the north and east, Aliso Viejo on the south, Laguna Beach on the southwest, the Crystal Cove State Park on the west, and Irvine on the northwest.

Biological Setting: CDFW acknowledges that the properties/sites identified in the Project documents are located within urbanized and developed areas; however, a few are located on the western and southern boundaries of the City, adjacent to areas containing biological resources. Specifically, the western portion of the City is adjacent to the Central Coastal Reserve and portions of the southern boundary are adjacent to Aliso Creek. Both the Central Coastal Reserve and Aliso Creek contain biological resources of regional significance, including conserved lands, sensitive species, and high-value upland and riparian habitats.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

To enable CDFW to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, wildlife, and natural habitats, we recommend the following information be included in the PEIR:

Christopher Macon, City Manager
City of Laguna Woods
August 30, 2022
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- 1) **NCCP Compliance:** CDFW administers the Natural Community Conservation Planning (NCCP) program. The County of Orange participates in the NCCP program through its role as a Permitted Jurisdiction and Participating Landowner under the County of Orange Central and Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). Although the City of Laguna Woods is not a Participating Landowner under the NCCP/HCP, based on the close proximity to the boundaries to the Central and Coastal NCCP, CDFW recommends that the City follow the guidelines set forth in the NCCP/HCP during the implementation of this Project in order to adequately avoid and minimize potential impacts to biological resources. CDFW requests that Project design be in alignment with the NCCP.
- 2) **Land Use Designations and Housing:** While CDFW recognizes that the shift in land use designations to provide additional housing sites is planned to have minimal impact on biological resources, CDFW recommends maximizing open space when planning future housing projects. For instance, housing developments should remain compact and near to developed areas in order to preserve existing open space.
- 3) **Biological Impacts:** To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources for related subsequent housing projects, with specific measures to offset such impacts, the following should be addressed in the draft PEIR:
 - a) a discussion of potential adverse impacts from lighting, noise, human activity, sensitive species, recreational uses, and potential impacts to Aliso Creek. The latter subject should address: Project-related changes to drainage patterns on, and downstream of, the Project site; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in the stream; and post-Project fate of runoff from the Project site. Mitigation measures proposed to alleviate such impacts should be included;
 - b) discussion regarding indirect Project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., existing preserve lands or lands designated as within the County of Orange Central and Coastal Subregion NCCP/HCP);
 - c) the zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible wildlife conflicts and mitigation measures to reduce these conflicts should be included in the environmental document; and,
 - d) CDFW also recommends that a habitat gain/loss table be included, if applicable, which calculates the expected net habitat losses and gains of each type of habitat area lost, restored, enhanced, and created.
- 4) **Cumulative Effects Analysis:** A cumulative effects analysis should be developed as described under CEQA Guidelines, section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats. The draft PEIR should

Christopher Macon, City Manager
City of Laguna Woods
August 30, 2022
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evaluate the full scope of potential actions as part of the cumulative impact analysis and discussion of related actions.

- 5) Lake and Streambed Alteration Notification:** The Project area covers the entire City of Laguna Woods which includes Aliso Creek. Based on the NOP, it is unclear if impacts to Aliso Creek may occur from individual development projects associated with the PEIR. CDFW has regulatory authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of any river, stream, or lake or use material from a river, stream, or lake. For any such activities, the Project applicant (or “entity”) must provide written notification to CDFW pursuant to section 1600 *et seq.* of the Fish and Game Code. Based on this notification and other information, CDFW determines whether a Lake and Streambed Alteration Agreement (LSAA) with the applicant is required prior to conducting the proposed activities. CDFW’s issuance of a LSAA for a Project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. CDFW as a Responsible Agency under CEQA may consider the City’s PEIR for the Project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, the document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSAA.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be filled out and submitted online at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)


CONCLUSION

CDFW appreciates the opportunity to comment on the NOP assist the City of Laguna Woods in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Alex Troeller, Environmental Scientist at Alex.Troeller@wildlife.ca.gov.

Christopher Macon, City Manager
City of Laguna Woods
August 30, 2022
Page 5 of 5

Sincerely,

DocuSigned by:

C3D449ECB7C14DE...

Jennifer Turner signing for

David Mayer
Environmental Program Manager
South Coast Region

ec: CDFW

Jennifer Turner, San Diego – Jennifer.Turner@wildlife.ca.gov

Cindy Hailey, San Diego – Cindy.Hailey@wildlife.ca.gov

Office of Planning and Research

State Clearinghouse, Sacramento – State.Clearinghouse@opr.ca.gov

Tamar Gharibian

From: Ryan Bensley
Sent: Tuesday, August 16, 2022 3:28 PM
To: Kerrie Collison
Cc: Ashley Davis; Scott Vurbeff; Tamar Gharibian
Subject: FW: EIR
Attachments: 08162022 PrepDEIRLagunaWds.pdf

For your reference as part of the tribal consultation process.

Ryan Bensley, AICP | Associate/Environmental Planner
LSA | 20 Executive Park, Suite 200
Irvine, CA 92614

949-553-0666 Tel
714-926-9283 Mobile
[Website](#)

From: Chris Macon <CMacon@cityoflagunawoods.org>
Sent: Tuesday, August 16, 2022 3:12 PM
To: Ashley Davis <Ashley.Davis@lsa.net>; Ryan Bensley <Ryan.Bensley@lsa.net>
Cc: Rebecca Pennington <RPennington@cityoflagunawoods.org>
Subject: FW: EIR

FYI

Christopher Macon
City Manager
City of Laguna Woods
(949) 639-0525

From: Raslich, Nicole (TRBL) <nraslich@aguacaliente.net>
Sent: Tuesday, August 16, 2022 3:08 PM
To: City Hall - City of Laguna Woods <CityHall@cityoflagunawoods.org>
Subject: EIR

Hello,

We appreciate your effort and thank you for your inquiry.

A records check of the Tribal Historic preservation office's cultural registry revealed that this project is not located within the Tribe's Traditional Use Area. Therefore, we defer to the other tribes in the area. This letter shall conclude our consultation efforts.

Best,

Nicole A. Raslich, M.A.

Archaeological Technician
Tribal Historic Preservation Office
Agua Caliente Band of Cahuilla Indians
D: +1 (760) 883-1134
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nraslich@aguacaliente.net





August 15, 2022

Rebecca M. Pennington, Development Programs Analyst
City of Laguna Woods
24264 El Toro Road
Laguna Woods, California 92637
Phone: (949) 639-0561
E-mail: cityhall@cityoflagunawoods.org

RE: SCAG Comments on the Notice of Preparation of a Program Environmental Impact Report for the Laguna Woods General Plan and Zoning Code Update [SCAG NO. IGR10684]

Dear Rebecca Pennington,

Thank you for submitting the Notice of Preparation of a Program Environmental Impact Report for the Laguna Woods General Plan and Zoning Code Update (“proposed project”) to the Southern California Association of Governments (SCAG) for review and comment. SCAG is responsible for providing informational resources to regionally significant plans, projects, and programs per the California Environmental Quality Act (CEQA) to facilitate the consistency of these projects with SCAG’s adopted regional plans, to be determined by the lead agencies.¹

Pursuant to Senate Bill (SB) 375, SCAG is the designated Regional Transportation Planning Agency under state law and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS). SCAG’s feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) goals and align with RTP/SCS policies. Finally, SCAG is the authorized regional agency for Intergovernmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372.

SCAG staff has reviewed the Notice of Preparation of a Program Environmental Impact Report for the Laguna Woods General Plan and Zoning Code Update in Orange County. The proposed project includes the creation of four new overlay zoning districts, rezoning of 17 properties, changing the General Plan land use designation for 12 properties, and updates to the City’s General Plan Circulation Element and Noise Element to ensure consistency with the Housing Element and accommodate housing development as required by RHNA.

When available, please email environmental documentation to IGR@scag.ca.gov providing, at a minimum, the full public comment period for review.

If you have any questions regarding the attached comments, please contact the Intergovernmental Review (IGR) Program, attn.: Annaleigh Ekman, Associate Regional Planner, at (213) 630-1427 or IGR@scag.ca.gov. Thank you.

Sincerely,

Frank Wen, Ph.D.
Manager, Planning Strategy Department

¹ Lead agencies such as local jurisdictions have the sole discretion in determining a local project’s consistency with the 2020 RTP/SCS (Connect SoCal) for the purpose of determining consistency for CEQA.

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**COMMENTS ON THE NOTICE OF PREPARATION OF A
PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE
LAGUNA WOODS GENERAL PLAN AND ZONING CODE UPDATE [SCAG NO. IGR10684]**

CONSISTENCY WITH CONNECT SOCIAL

SCAG provides informational resources to facilitate the consistency of the proposed project with the adopted 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS or Connect SoCal). For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project’s consistency with Connect SoCal.

CONNECT SOCIAL GOALS

The SCAG Regional Council fully adopted [Connect SoCal](#) in September 2020. Connect SoCal, also known as the 2020 – 2045 RTP/SCS, builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in Connect SoCal may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project. Among the relevant goals of Connect SoCal are the following:

SCAG CONNECT SOCIAL GOALS	
Goal #1:	<i>Encourage regional economic prosperity and global competitiveness</i>
Goal #2:	<i>Improve mobility, accessibility, reliability and travel safety for people and goods</i>
Goal #3:	<i>Enhance the preservation, security, and resilience of the regional transportation system</i>
Goal #4:	<i>Increase person and goods movement and travel choices within the transportation system</i>
Goal #5:	<i>Reduce greenhouse gas emissions and improve air quality</i>
Goal #6:	<i>Support healthy and equitable communities</i>
Goal #7:	<i>Adapt to a changing climate and support an integrated regional development pattern and transportation network</i>
Goal #8:	<i>Leverage new transportation technologies and data-driven solutions that result in more efficient travel</i>
Goal #9:	<i>Encourage development of diverse housing types in areas that are supported by multiple transportation options</i>
Goal #10:	<i>Promote conservation of natural and agricultural lands and restoration of habitats</i>

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG CONNECT SOCIAL GOALS	
Goal	Analysis
Goal #1: <i>Encourage regional economic prosperity and global competitiveness</i>	<i>Consistent: Statement as to why; Not-Consistent: Statement as to why; Or Not Applicable: Statement as to why; DEIR page number reference</i>
Goal #2: <i>Improve mobility, accessibility, reliability and travel safety for people and goods</i>	<i>Consistent: Statement as to why; Not-Consistent: Statement as to why; Or Not Applicable: Statement as to why; DEIR page number reference</i>
etc.	etc.

Connect SoCal Strategies

To achieve the goals of Connect SoCal, a wide range of land use and transportation strategies are included in the accompanying twenty (20) technical reports. Of particular note are multiple strategies included in Chapter 3 of Connect SoCal intended to support implementation of the regional Sustainable Communities Strategy (SCS) framed within the context of focusing growth near destinations and mobility options; promoting diverse housing choices; leveraging technology innovations; supporting implementation of sustainability policies; and promoting a Green Region. To view Connect SoCal and the accompanying technical reports, please visit the [Connect SoCal webpage](#). Connect SoCal builds upon the progress from previous RTP/SCS cycles and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that helps the SCAG region strive towards a more sustainable region, while meeting statutory requirements pertinent to RTP/SCSs. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

DEMOGRAPHICS AND GROWTH FORECASTS

A key, formative step in projecting future population, households, and employment through 2045 for Connect SoCal was the generation of a forecast of regional and county level growth in collaboration with expert demographers and economists on Southern California. From there, jurisdictional level forecasts were ground-truthed by subregions and local agencies, which helped SCAG identify opportunities and barriers to future development. This forecast helps the region understand, in a very general sense, where we are expected to grow, and allows SCAG to focus attention on areas that are experiencing change and may have increased transportation needs. After a year-long engagement effort with all 197 jurisdictions one-on-one, 82 percent of SCAG’s 197 jurisdictions provided feedback on the forecast of future growth for Connect SoCal. SCAG also sought feedback on potential sustainable growth strategies from a broad range of stakeholder groups – including local jurisdictions, county transportation commissions, other partner agencies, industry groups, community-based organizations, and the general public. Connect SoCal utilizes a bottom-up approach in that total projected growth for each jurisdiction reflects feedback received from jurisdiction staff, including city managers, community development/planning directors, and local staff. Growth at the neighborhood level (i.e., transportation analysis zone (TAZ) reflects entitled projects and adheres to current general and specific plan maximum densities as conveyed by jurisdictions (except in cases where entitled projects and development agreements exceed these capacities as calculated by SCAG). Neighborhood level growth projections also feature strategies that help to reduce greenhouse gas emissions (GHG) from automobiles and light trucks to achieve Southern California’s GHG reduction target, approved by the California Air Resources Board (CARB) in accordance with state planning law. Connect SoCal’s Forecasted Development Pattern is utilized for long range modeling purposes and does not supersede actions taken by elected bodies on future development, including entitlements and development agreements. SCAG does not have the authority to implement the plan -- neither through decisions about what type of development is built where, nor what transportation projects are ultimately built, as Connect

SoCal is adopted at the jurisdictional level. Achieving a sustained regional outcome depends upon informed and intentional local action. To access jurisdictional level growth estimates and forecasts for years 2016 and 2045, please refer to the [Connect SoCal Demographics and Growth Forecast Technical Report](#). The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts				Adopted City of Laguna Woods Forecasts			
	Year 2020	Year 2030	Year 2035	Year 2045	Year 2020	Year 2030	Year 2035	Year 2045
Population	19,517,731	20,821,171	21,443,006	22,503,899	16,303	16,668	16,669	16,532
Households	6,333,458	6,902,821	7,170,110	7,633,451	11,415	11,439	11,418	11,513
Employment	8,695,427	9,303,627	9,566,384	10,048,822	5,762	6,415	6,642	6,809

MITIGATION MEASURES

SCAG staff recommends that you review the [Final Program Environmental Impact Report](#) (Final PEIR) for Connect SoCal for guidance, as appropriate. SCAG’s Regional Council certified the PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on May 7, 2020 and also adopted a PEIR Addendum and amended the MMRP on September 3, 2020 (please see the [PEIR webpage](#) and scroll to the bottom of the page for the PEIR Addendum). The PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

REGIONAL HOUSING NEEDS ALLOCATION

On March 4, 2021 SCAG’s Regional Council adopted the [6th cycle Final Regional Housing Needs Assessment \(RHNA\) Allocation Plan](#) which covers the planning period October 2021 through October 2029. The 6th cycle Final RHNA allocation for the applicable jurisdiction is below.

SCAG 6 th Cycle Final RHNA Allocation for City of Laguna Woods	
Income Category	RHNA Allocation (Units)
Very low income	127
Low income	136
Moderate income	192
Above moderate income	542
Total RHNA Allocation	997

Sixth cycle housing elements were due to the California Department of Housing and Community Development (HCD) by October 15, 2021. SCAG encourages jurisdictions to adopt a housing element in compliance with State housing law as determined by review from HCD. Jurisdictions that do not have an adopted compliant housing element may be ineligible for certain State funding and grant opportunities and may be at risk for legal action from stakeholders or HCD.

SCAG staff would like to call your attention to SCAG’s [HELPR 2.0](#), a web-mapping tool developed by SCAG to help local jurisdictions and stakeholders understand local land use, site opportunities, and environmental sensitivities for aligning housing planning with the state Department of Housing and Community Development’s (HCD) [6th cycle housing element requirements](#).



NATIVE AMERICAN HERITAGE COMMISSION

RECEIVED

August 4, 2022

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Laguna Woods, CA 92637

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City of Laguna Woods

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West Sacramento,
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nahc@nahc.ca.gov
NAHC.ca.gov

Re: 2022080022, Laguna Woods General Plan and Zoning Code Update Project, Orange County

Dear Mr. Macon:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

- 1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:** Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPA.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subs. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:
Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse



Board of Education

Amanda Morrell, President · Barbara Schulman, Vice President ·
Dr. Edward Wong, Clerk · Suzie R. Swartz, Member · Greg Kunath, Member

Crystal Turner, Ed.D.
Superintendent

August 8, 2022

RECEIVED

AUG 12 2022

City Clerk
City of Laguna Woods

City of Laguna Woods
Attn: General Plan and Zoning Code Update
24264 El Toro Road
Laguna Woods, California 92637

Via Email: cityhall@cityoflagunawoods.org

Subject: General Plan and Zoning Code Update

Thank you for allowing Saddleback Valley Unified School District (SVUSD or District) to review and comment on the Notice of Preparation for City's General Plan and Zoning Code Update Program EIR.

The City is proposing to update its zoning code by 1) creating four new overlay zones to allow residential development; 2) rezone 17 properties with one of the four new overlay zones to allow residential development in addition to existing land uses allowed; 3) rezone 12 properties to better correlate to existing land uses; and 4) update the circulation and noise elements of the City's General Plan to ensure consistency with the City's Housing Element. The rezoning is intended to accommodate the City's 6th Cycle Regional Housing Needs Assessment (RHNA) housing allocation (997 dwelling units).

A portion of the city of Laguna Woods is in the SVUSD, and some properties slated for rezoning are in the attendance area of the District. SVUSD requests that the Draft EIR evaluate the potential impact of the project on District schools by identifying the location of the properties and calculating the number of dwelling units that may be developed as well as the number of students generated, by grade level and school. The District requests an evaluation of potential impacts on school capacity and possible overcrowding.

The District welcomes the City's proposed update of the circulation and noise elements and requests that the updates and the Draft EIR focus on possible impacts to student safety and well-being.

Please continue to notify us of all actions on the General Plan and Zoning Code Update and other resulting development projects and give us an opportunity to review future environmental documents. We look forward to working cooperatively with the City to create the best environment for our students and staff. Please contact the undersigned if you have any questions.

Sincerely,

Doug Monfils
Director of Facilities, Construction & Maintenance

APPENDIX B

AIR QUALITY/ENERGY/GREENHOUSE GAS CALEEMOD MODELING DATA

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Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Laguna Woods General Plan and Zoning Update Project

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,197.00	Dwelling Unit	388.64	2,154,600.00	3423

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2045
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	390.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The project proposes to develop a total of 1,197 residential units across 17 different sites.

Construction Phase - Construction assumed to start 2023 and end in 2045. Overlap of building construction and architectural coating.

Off-road Equipment - Default

Off-road Equipment - Default

Grading - Assumed balanced sites

Vehicle Trips - Based on a net trip generation of 746 ADT

Construction Off-road Equipment Mitigation - Use of construction equipment tier 2, water exposed area twice, and reduced vehicle speed to 15 mph

Area Mitigation - Only natural gas hearths

Off-road Equipment - Default

Demolition - Demolition of existing buildings

Fleet Mix - Default fleet mix

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tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	440.00	2,250.00
tblConstructionPhase	NumDays	6,200.00	4,450.00
tblConstructionPhase	NumDays	400.00	620.00
tblConstructionPhase	NumDays	620.00	500.00
tblConstructionPhase	NumDays	440.00	150.00
tblConstructionPhase	NumDays	240.00	200.00
tblVehicleTrips	ST_TR	9.54	0.62
tblVehicleTrips	SU_TR	8.55	0.62
tblVehicleTrips	WD_TR	9.44	0.62

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3014	2.8549	2.6295	5.4900e-003	0.1295	0.1302	0.2596	0.0230	0.1211	0.1441	0.0000	485.2361	485.2361	0.1268	4.7000e-003	489.8083
2024	0.3001	2.7967	2.6547	5.5200e-003	0.1305	0.1263	0.2568	0.0232	0.1173	0.1405	0.0000	488.2515	488.2515	0.1277	4.6600e-003	492.8316
2025	0.3099	3.0223	2.4752	5.2900e-003	1.6964	0.1306	1.8270	0.8395	0.1205	0.9600	0.0000	466.8795	466.8795	0.1361	1.9700e-003	470.8690
2026	0.3768	3.6003	3.3429	7.8700e-003	1.9914	0.1469	2.1383	0.6650	0.1351	0.8002	0.0000	692.6169	692.6169	0.2178	4.3000e-004	698.1918
2027	0.3845	3.6502	3.4966	8.3100e-003	1.6099	0.1477	1.7576	0.5255	0.1359	0.6614	0.0000	731.4045	731.4045	0.2304	4.2000e-004	737.2893
2028	0.3181	2.3642	3.5682	0.0105	1.5206	0.0784	1.5990	0.2936	0.0736	0.3671	0.0000	980.8459	980.8459	0.1042	0.0456	997.0356

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2029	0.3091	2.2864	3.5400	0.0105	0.7227	0.0743	0.7970	0.1943	0.0699	0.2642	0.0000	987.7843	987.7843	0.0965	0.0476	1,004.3788
2030	0.2955	1.6867	3.5087	0.0108	0.7227	0.0246	0.7473	0.1943	0.0243	0.2186	0.0000	1,016.9600	1,016.9600	0.0388	0.0467	1,031.8475
2031	0.2894	1.6774	3.4734	0.0107	0.7227	0.0244	0.7471	0.1943	0.0241	0.2184	0.0000	1,005.4435	1,005.4435	0.0385	0.0458	1,020.0493
2032	0.2851	1.6778	3.4557	0.0106	0.7255	0.0243	0.7498	0.1951	0.0241	0.2191	0.0000	1,000.3417	1,000.3417	0.0384	0.0452	1,014.7840
2033	0.2781	1.6600	3.4030	0.0104	0.7199	0.0240	0.7440	0.1936	0.0238	0.2173	0.0000	984.8122	984.8122	0.0379	0.0443	998.9513
2034	0.2738	1.6552	3.3792	0.0103	0.7199	0.0239	0.7438	0.1936	0.0237	0.2172	0.0000	977.7028	977.7028	0.0377	0.0437	991.6646
2035	0.2588	1.5565	3.3668	0.0103	0.7227	0.0164	0.7391	0.1943	0.0161	0.2104	0.0000	975.1881	975.1881	0.0367	0.0433	989.0187
2036	0.2598	1.5624	3.3797	0.0103	0.7255	0.0164	0.7419	0.1951	0.0162	0.2112	0.0000	978.9244	978.9244	0.0369	0.0435	992.8081
2037	1.0202	1.6583	3.7760	0.0114	0.8379	0.0179	0.8557	0.2249	0.0176	0.2425	0.0000	1,079.2521	1,079.2521	0.0387	0.0447	1,093.5383
2038	1.0733	1.6654	3.8045	0.0115	0.8459	0.0180	0.8639	0.2270	0.0177	0.2447	0.0000	1,086.5024	1,086.5024	0.0388	0.0448	1,100.8204
2039	1.0692	1.6590	3.7900	0.0114	0.8427	0.0179	0.8606	0.2262	0.0176	0.2438	0.0000	1,082.3396	1,082.3396	0.0387	0.0446	1,096.6027
2040	1.0529	1.6136	3.7211	0.0112	0.8459	0.0151	0.8610	0.2271	0.0148	0.2419	0.0000	1,063.3513	1,063.3513	0.0373	0.0429	1,077.0620
2041	1.0529	1.6136	3.7211	0.0112	0.8459	0.0151	0.8610	0.2271	0.0148	0.2419	0.0000	1,063.3513	1,063.3513	0.0373	0.0429	1,077.0620
2042	1.0529	1.6136	3.7211	0.0112	0.8459	0.0151	0.8610	0.2271	0.0148	0.2419	0.0000	1,063.3513	1,063.3513	0.0373	0.0429	1,077.0620
2043	1.0529	1.6136	3.7211	0.0112	0.8459	0.0151	0.8610	0.2271	0.0148	0.2419	0.0000	1,063.3513	1,063.3513	0.0373	0.0429	1,077.0620
2044	1.0529	1.6136	3.7211	0.0112	0.8459	0.0151	0.8610	0.2271	0.0148	0.2419	0.0000	1,063.3513	1,063.3513	0.0373	0.0429	1,077.0620
2045	0.6627	0.5197	1.8679	4.0900e-003	0.1804	0.0112	0.1916	0.0482	0.0111	0.0593	0.0000	371.7175	371.7175	0.0114	5.7500e-003	373.7157
Maximum	1.0733	3.6502	3.8045	0.0115	1.9914	0.1477	2.1383	0.8395	0.1359	0.9600	0.0000	1,086.5024	1,086.5024	0.2304	0.0476	1,100.8204

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1705	4.3083	3.2835	5.4900e-003	0.0744	0.1192	0.1936	0.0147	0.1192	0.1339	0.0000	485.2356	485.2356	0.1268	4.7000e-003	489.8078
2024	0.1714	4.3406	3.3053	5.5200e-003	0.0750	0.1202	0.1951	0.0148	0.1201	0.1349	0.0000	488.2510	488.2510	0.1277	4.6600e-003	492.8311
2025	0.1663	4.3739	3.1441	5.2900e-003	0.7783	0.1221	0.9005	0.3818	0.1221	0.5039	0.0000	466.8790	466.8790	0.1361	1.9700e-003	470.8684
2026	0.2313	6.3664	4.6001	7.8700e-003	0.9117	0.1670	1.0786	0.3034	0.1670	0.4703	0.0000	692.6161	692.6161	0.2178	4.3000e-004	698.1909
2027	0.2422	6.6903	4.8526	8.3100e-003	0.7402	0.1741	0.9143	0.2407	0.1741	0.4148	0.0000	731.4037	731.4037	0.2304	4.2000e-004	737.2885
2028	0.2748	3.8968	3.8653	0.0105	1.0583	0.1260	1.1842	0.2327	0.1256	0.3583	0.0000	980.8455	980.8455	0.1042	0.0456	997.0352
2029	0.2717	3.7329	3.7735	0.0105	0.7227	0.1233	0.8460	0.1943	0.1230	0.3174	0.0000	987.7840	987.7840	0.0965	0.0476	1,004.3785
2030	0.2657	3.7250	3.7327	0.0108	0.7227	0.1232	0.8459	0.1943	0.1229	0.3172	0.0000	1,016.9596	1,016.9596	0.0388	0.0467	1,031.8471
2031	0.2596	3.7158	3.6974	0.0107	0.7227	0.1230	0.8457	0.1943	0.1227	0.3170	0.0000	1,005.4431	1,005.4431	0.0385	0.0458	1,020.0489
2032	0.2552	3.7240	3.6806	0.0106	0.7255	0.1233	0.8488	0.1951	0.1230	0.3181	0.0000	1,000.3413	1,000.3413	0.0384	0.0452	1,014.7836
2033	0.2484	3.6905	3.6261	0.0104	0.7199	0.1222	0.8422	0.1936	0.1220	0.3156	0.0000	984.8118	984.8118	0.0379	0.0443	998.9509
2034	0.2441	3.6858	3.6024	0.0103	0.7199	0.1221	0.8420	0.1936	0.1219	0.3154	0.0000	977.7024	977.7024	0.0377	0.0437	991.6642
2035	0.2411	3.6958	3.5960	0.0103	0.7227	0.1225	0.8452	0.1943	0.1222	0.3166	0.0000	975.1876	975.1876	0.0367	0.0433	989.0183
2036	0.2420	3.7099	3.6097	0.0103	0.7255	0.1230	0.8484	0.1951	0.1227	0.3178	0.0000	978.9240	978.9240	0.0369	0.0435	992.8077
2037	1.0020	3.9922	4.0098	0.0114	0.8379	0.1344	0.9723	0.2249	0.1341	0.3590	0.0000	1,079.2516	1,079.2516	0.0387	0.0447	1,093.5378
2038	1.0550	4.0128	4.0387	0.0115	0.8459	0.1352	0.9811	0.2270	0.1349	0.3620	0.0000	1,086.5020	1,086.5020	0.0388	0.0448	1,100.8199

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2039	1.0510	3.9974	4.0232	0.0114	0.8427	0.1347	0.9773	0.2262	0.1344	0.3606	0.0000	1,082.3391	1,082.3391	0.0387	0.0446	1,096.6022
2040	1.0376	4.0003	3.9554	0.0112	0.8459	0.1348	0.9807	0.2271	0.1346	0.3616	0.0000	1,063.3509	1,063.3509	0.0373	0.0429	1,077.0615
2041	1.0376	4.0003	3.9554	0.0112	0.8459	0.1348	0.9807	0.2271	0.1346	0.3616	0.0000	1,063.3509	1,063.3509	0.0373	0.0429	1,077.0615
2042	1.0376	4.0003	3.9554	0.0112	0.8459	0.1348	0.9807	0.2271	0.1346	0.3616	0.0000	1,063.3509	1,063.3509	0.0373	0.0429	1,077.0615
2043	1.0376	4.0003	3.9554	0.0112	0.8459	0.1348	0.9807	0.2271	0.1346	0.3616	0.0000	1,063.3509	1,063.3509	0.0373	0.0429	1,077.0615
2044	1.0376	4.0003	3.9554	0.0112	0.8459	0.1348	0.9807	0.2271	0.1346	0.3616	0.0000	1,063.3509	1,063.3509	0.0373	0.0429	1,077.0615
2045	0.6548	2.1503	2.0087	4.0900e-003	0.1804	0.0728	0.2532	0.0482	0.0727	0.1209	0.0000	371.7172	371.7172	0.0114	5.7500e-003	373.7154
Maximum	1.0550	6.6903	4.8526	0.0115	1.0583	0.1741	1.1842	0.3818	0.1741	0.5039	0.0000	1,086.5020	1,086.5020	0.2304	0.0476	1,100.8199

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	8.21	-105.63	-11.24	0.00	17.38	-162.46	7.68	20.43	-178.03	-10.39	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2023	4-1-2023	0.7804	1.1073
2	4-2-2023	7-1-2023	0.7883	1.1189
3	7-2-2023	10-1-2023	0.7969	1.1312
4	10-2-2023	1-1-2024	0.7975	1.1319
5	1-2-2024	4-1-2024	0.7682	1.1193
6	4-2-2024	7-1-2024	0.7675	1.1186
7	7-2-2024	10-1-2024	0.7759	1.1309
8	10-2-2024	1-1-2025	0.7760	1.1317

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9	1-2-2025	4-1-2025	0.7006	1.1067
10	4-2-2025	7-1-2025	0.7864	1.1030
11	7-2-2025	10-1-2025	0.9127	1.1501
12	10-2-2025	1-1-2026	0.9129	1.1503
13	1-2-2026	4-1-2026	0.9158	1.3461
14	4-2-2026	7-1-2026	1.0048	1.7265
15	7-2-2026	10-1-2026	1.0159	1.7455
16	10-2-2026	1-1-2027	1.0161	1.7457
17	1-2-2027	4-1-2027	0.9939	1.7076
18	4-2-2027	7-1-2027	1.0047	1.7264
19	7-2-2027	10-1-2027	1.0157	1.7453
20	10-2-2027	1-1-2028	1.0160	1.7456
21	1-2-2028	4-1-2028	0.7154	1.1401
22	4-2-2028	7-1-2028	0.6414	0.9923
23	7-2-2028	10-1-2028	0.6485	1.0033
24	10-2-2028	1-1-2029	0.6596	1.0143
25	1-2-2029	4-1-2029	0.6414	0.9885
26	4-2-2029	7-1-2029	0.6378	0.9887
27	7-2-2029	10-1-2029	0.6449	0.9997
28	10-2-2029	1-1-2030	0.6541	1.0105
29	1-2-2030	4-1-2030	0.4903	0.9850
30	4-2-2030	7-1-2030	0.4852	0.9854
31	7-2-2030	10-1-2030	0.4906	0.9964
32	10-2-2030	1-1-2031	0.5012	1.0069
33	1-2-2031	4-1-2031	0.4864	0.9811
34	4-2-2031	7-1-2031	0.4815	0.9818
35	7-2-2031	10-1-2031	0.4869	0.9927
36	10-2-2031	1-1-2032	0.4973	1.0030
37	1-2-2032	4-1-2032	0.4889	0.9891

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38	4-2-2032	7-1-2032	0.4788	0.9790
39	7-2-2032	10-1-2032	0.4842	0.9899
40	10-2-2032	1-1-2033	0.4944	1.0001
41	1-2-2033	4-1-2033	0.4810	0.9758
42	4-2-2033	7-1-2033	0.4765	0.9767
43	7-2-2033	10-1-2033	0.4818	0.9875
44	10-2-2033	1-1-2034	0.4918	0.9975
45	1-2-2034	4-1-2034	0.4787	0.9735
46	4-2-2034	7-1-2034	0.4743	0.9745
47	7-2-2034	10-1-2034	0.4796	0.9853
48	10-2-2034	1-1-2035	0.4892	0.9952
49	1-2-2035	4-1-2035	0.4489	0.9714
50	4-2-2035	7-1-2035	0.4442	0.9725
51	7-2-2035	10-1-2035	0.4492	0.9833
52	10-2-2035	1-1-2036	0.4589	0.9931
53	1-2-2036	4-1-2036	0.4539	0.9822
54	4-2-2036	7-1-2036	0.4442	0.9725
55	7-2-2036	10-1-2036	0.4492	0.9833
56	10-2-2036	1-1-2037	0.4589	0.9931
57	1-2-2037	4-1-2037	0.6159	1.1760
58	4-2-2037	7-1-2037	0.6738	1.2539
59	7-2-2037	10-1-2037	0.6813	1.2678
60	10-2-2037	1-1-2038	0.6919	1.2783
61	1-2-2038	4-1-2038	0.6767	1.2504
62	4-2-2038	7-1-2038	0.6738	1.2539
63	7-2-2038	10-1-2038	0.6813	1.2678
64	10-2-2038	1-1-2039	0.6919	1.2783
65	1-2-2039	4-1-2039	0.6767	1.2504
66	4-2-2039	7-1-2039	0.6738	1.2539

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67	7-2-2039	10-1-2039	0.6813	1.2678
68	10-2-2039	1-1-2040	0.6917	1.2782
69	1-2-2040	4-1-2040	0.6660	1.2566
70	4-2-2040	7-1-2040	0.6560	1.2466
71	7-2-2040	10-1-2040	0.6633	1.2604
72	10-2-2040	1-1-2041	0.6734	1.2705
73	1-2-2041	4-1-2041	0.6586	1.2428
74	4-2-2041	7-1-2041	0.6560	1.2466
75	7-2-2041	10-1-2041	0.6633	1.2604
76	10-2-2041	1-1-2042	0.6734	1.2705
77	1-2-2042	4-1-2042	0.6586	1.2428
78	4-2-2042	7-1-2042	0.6560	1.2466
79	7-2-2042	10-1-2042	0.6633	1.2604
80	10-2-2042	1-1-2043	0.6734	1.2705
81	1-2-2043	4-1-2043	0.6586	1.2428
82	4-2-2043	7-1-2043	0.6560	1.2466
83	7-2-2043	10-1-2043	0.6633	1.2604
84	10-2-2043	1-1-2044	0.6734	1.2705
85	1-2-2044	4-1-2044	0.6660	1.2566
86	4-2-2044	7-1-2044	0.6560	1.2466
87	7-2-2044	10-1-2044	0.6633	1.2604
88	10-2-2044	1-1-2045	0.6734	1.2705
89	1-2-2045	4-1-2045	0.5089	1.1192
90	4-2-2045	7-1-2045	0.3798	0.9649
91	7-2-2045	9-30-2045	0.2763	0.6789
		Highest	1.0161	1.7457

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.7480	0.4523	19.8992	0.0201		1.2114	1.2114		1.2114	1.2114	127.1442	264.4917	391.6359	0.3984	8.6300e-003	404.1666
Energy	0.1543	1.3181	0.5609	8.4100e-003		0.1066	0.1066		0.1066	0.1066	0.0000	3,186.1487	3,186.1487	0.1693	0.0450	3,203.7818
Mobile	0.2749	0.2710	2.9000	6.3900e-003	0.9554	2.8900e-003	0.9583	0.2550	2.7000e-003	0.2577	0.0000	649.7722	649.7722	0.0385	0.0267	658.6800
Waste						0.0000	0.0000		0.0000	0.0000	284.8836	0.0000	284.8836	16.8361	0.0000	705.7871
Water						0.0000	0.0000		0.0000	0.0000	24.7424	276.9689	301.7114	2.5647	0.0628	384.5539
Total	13.1772	2.0414	23.3601	0.0349	0.9554	1.3209	2.2763	0.2550	1.3207	1.5757	436.7703	4,377.3815	4,814.1518	20.0070	0.1431	5,356.9693

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.8535	0.3652	12.3851	2.0800e-003		0.0865	0.0865		0.0865	0.0865	0.0000	278.8639	278.8639	0.0242	4.7400e-003	280.8810
Energy	0.1543	1.3181	0.5609	8.4100e-003		0.1066	0.1066		0.1066	0.1066	0.0000	3,186.1487	3,186.1487	0.1693	0.0450	3,203.7818
Mobile	0.2749	0.2710	2.9000	6.3900e-003	0.9554	2.8900e-003	0.9583	0.2550	2.7000e-003	0.2577	0.0000	649.7722	649.7722	0.0385	0.0267	658.6800
Waste						0.0000	0.0000		0.0000	0.0000	284.8836	0.0000	284.8836	16.8361	0.0000	705.7871
Water						0.0000	0.0000		0.0000	0.0000	24.7424	276.9689	301.7114	2.5647	0.0628	384.5539
Total	9.2826	1.9544	15.8460	0.0169	0.9554	0.1960	1.1514	0.2550	0.1958	0.4508	309.6260	4,391.7537	4,701.3798	19.6328	0.1392	5,233.6838

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	29.56	4.27	32.17	51.58	0.00	85.16	49.42	0.00	85.18	71.39	29.11	-0.33	2.34	1.87	2.72	2.30

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2023	5/16/2025	5	620	
2	Site Preparation	Site Preparation	5/19/2025	2/20/2026	5	200	
3	Grading	Grading	2/23/2026	1/21/2028	5	500	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	1/24/2028	2/10/2045	5	4450
5	Architectural Coating	Architectural Coating	1/26/2037	9/8/2045	5	2250
6	Paving	Paving	2/6/2045	9/1/2045	5	150

Acres of Grading (Site Preparation Phase): 300

Acres of Grading (Grading Phase): 1500

Acres of Paving: 0

Residential Indoor: 4,363,065; Residential Outdoor: 1,454,355; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42

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Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	2,207.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	431.00	128.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	86.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1001	0.0000	0.1001	0.0152	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2950	2.7930	2.5536	5.0500e-003		0.1297	0.1297		0.1206	0.1206	0.0000	441.8969	441.8969	0.1238	0.0000	444.9908
Total	0.2950	2.7930	2.5536	5.0500e-003	0.1001	0.1297	0.2298	0.0152	0.1206	0.1358	0.0000	441.8969	441.8969	0.1238	0.0000	444.9908

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.4000e-004	0.0580	0.0190	2.6000e-004	7.9400e-003	3.6000e-004	8.3000e-003	2.1800e-003	3.4000e-004	2.5200e-003	0.0000	26.8590	26.8590	2.7100e-003	4.3100e-003	28.2107
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5100e-003	3.9400e-003	0.0569	1.8000e-004	0.0214	1.1000e-004	0.0215	5.6800e-003	1.0000e-004	5.7900e-003	0.0000	16.4803	16.4803	3.8000e-004	3.9000e-004	16.6069
Total	6.4500e-003	0.0620	0.0759	4.4000e-004	0.0294	4.7000e-004	0.0298	7.8600e-003	4.4000e-004	8.3100e-003	0.0000	43.3393	43.3393	3.0900e-003	4.7000e-003	44.8176

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0451	0.0000	0.0451	6.8200e-003	0.0000	6.8200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1640	4.2463	3.2076	5.0500e-003		0.1188	0.1188		0.1188	0.1188	0.0000	441.8964	441.8964	0.1238	0.0000	444.9903
Total	0.1640	4.2463	3.2076	5.0500e-003	0.0451	0.1188	0.1638	6.8200e-003	0.1188	0.1256	0.0000	441.8964	441.8964	0.1238	0.0000	444.9903

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.4000e-004	0.0580	0.0190	2.6000e-004	7.9400e-003	3.6000e-004	8.3000e-003	2.1800e-003	3.4000e-004	2.5200e-003	0.0000	26.8590	26.8590	2.7100e-003	4.3100e-003	28.2107
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5100e-003	3.9400e-003	0.0569	1.8000e-004	0.0214	1.1000e-004	0.0215	5.6800e-003	1.0000e-004	5.7900e-003	0.0000	16.4803	16.4803	3.8000e-004	3.9000e-004	16.6069
Total	6.4500e-003	0.0620	0.0759	4.4000e-004	0.0294	4.7000e-004	0.0298	7.8600e-003	4.4000e-004	8.3100e-003	0.0000	43.3393	43.3393	3.0900e-003	4.7000e-003	44.8176

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1009	0.0000	0.1009	0.0153	0.0000	0.0153	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2939	2.7350	2.5817	5.0900e-003		0.1258	0.1258		0.1169	0.1169	0.0000	445.3482	445.3482	0.1246	0.0000	448.4633
Total	0.2939	2.7350	2.5817	5.0900e-003	0.1009	0.1258	0.2267	0.0153	0.1169	0.1322	0.0000	445.3482	445.3482	0.1246	0.0000	448.4633

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.4000e-004	0.0581	0.0196	2.6000e-004	8.0100e-003	3.7000e-004	8.3800e-003	2.2000e-003	3.6000e-004	2.5500e-003	0.0000	26.6949	26.6949	2.7600e-003	4.2900e-003	28.0409
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2300e-003	3.5600e-003	0.0535	1.7000e-004	0.0216	1.1000e-004	0.0217	5.7300e-003	1.0000e-004	5.8300e-003	0.0000	16.2085	16.2085	3.5000e-004	3.7000e-004	16.3275
Total	6.1700e-003	0.0616	0.0730	4.3000e-004	0.0296	4.8000e-004	0.0301	7.9300e-003	4.6000e-004	8.3800e-003	0.0000	42.9033	42.9033	3.1100e-003	4.6600e-003	44.3684

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0454	0.0000	0.0454	6.8800e-003	0.0000	6.8800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1653	4.2790	3.2323	5.0900e-003		0.1197	0.1197		0.1197	0.1197	0.0000	445.3477	445.3477	0.1246	0.0000	448.4627
Total	0.1653	4.2790	3.2323	5.0900e-003	0.0454	0.1197	0.1651	6.8800e-003	0.1197	0.1266	0.0000	445.3477	445.3477	0.1246	0.0000	448.4627

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.4000e-004	0.0581	0.0196	2.6000e-004	8.0100e-003	3.7000e-004	8.3800e-003	2.2000e-003	3.6000e-004	2.5500e-003	0.0000	26.6949	26.6949	2.7600e-003	4.2900e-003	28.0409
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2300e-003	3.5600e-003	0.0535	1.7000e-004	0.0216	1.1000e-004	0.0217	5.7300e-003	1.0000e-004	5.8300e-003	0.0000	16.2085	16.2085	3.5000e-004	3.7000e-004	16.3275
Total	6.1700e-003	0.0616	0.0730	4.3000e-004	0.0296	4.8000e-004	0.0301	7.9300e-003	4.6000e-004	8.3800e-003	0.0000	42.9033	42.9033	3.1100e-003	4.6600e-003	44.3684

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0378	0.0000	0.0378	5.7200e-003	0.0000	5.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1025	0.9406	0.9515	1.9000e-003		0.0418	0.0418		0.0388	0.0388	0.0000	166.5885	166.5885	0.0465	0.0000	167.7514
Total	0.1025	0.9406	0.9515	1.9000e-003	0.0378	0.0418	0.0795	5.7200e-003	0.0388	0.0445	0.0000	166.5885	166.5885	0.0465	0.0000	167.7514

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5000e-004	0.0215	7.4700e-003	9.0000e-005	2.9900e-003	1.4000e-004	3.1300e-003	8.2000e-004	1.3000e-004	9.6000e-004	0.0000	9.8146	9.8146	1.0500e-003	1.5800e-003	10.3106
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.2100e-003	0.0188	6.0000e-005	8.0700e-003	4.0000e-005	8.1100e-003	2.1400e-003	4.0000e-005	2.1800e-003	0.0000	5.9149	5.9149	1.2000e-004	1.3000e-004	5.9567
Total	2.2000e-003	0.0227	0.0263	1.5000e-004	0.0111	1.8000e-004	0.0112	2.9600e-003	1.7000e-004	3.1400e-003	0.0000	15.7295	15.7295	1.1700e-003	1.7100e-003	16.2673

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3.2 Demolition - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0170	0.0000	0.0170	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0618	1.6005	1.2090	1.9000e-003		0.0448	0.0448		0.0448	0.0448	0.0000	166.5883	166.5883	0.0465	0.0000	167.7512
Total	0.0618	1.6005	1.2090	1.9000e-003	0.0170	0.0448	0.0618	2.5700e-003	0.0448	0.0473	0.0000	166.5883	166.5883	0.0465	0.0000	167.7512

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5000e-004	0.0215	7.4700e-003	9.0000e-005	2.9900e-003	1.4000e-004	3.1300e-003	8.2000e-004	1.3000e-004	9.6000e-004	0.0000	9.8146	9.8146	1.0500e-003	1.5800e-003	10.3106
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.2100e-003	0.0188	6.0000e-005	8.0700e-003	4.0000e-005	8.1100e-003	2.1400e-003	4.0000e-005	2.1800e-003	0.0000	5.9149	5.9149	1.2000e-004	1.3000e-004	5.9567
Total	2.2000e-003	0.0227	0.0263	1.5000e-004	0.0111	1.8000e-004	0.0112	2.9600e-003	1.7000e-004	3.1400e-003	0.0000	15.7295	15.7295	1.1700e-003	1.7100e-003	16.2673

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6315	0.0000	1.6315	0.8265	0.0000	0.8265	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2015	2.0566	1.4598	3.1000e-003		0.0886	0.0886		0.0815	0.0815	0.0000	272.7559	272.7559	0.0882	0.0000	274.9613
Total	0.2015	2.0566	1.4598	3.1000e-003	1.6315	0.0886	1.7201	0.8265	0.0815	0.9080	0.0000	272.7559	272.7559	0.0882	0.0000	274.9613

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	2.4100e-003	0.0376	1.2000e-004	0.0161	8.0000e-005	0.0162	4.2800e-003	7.0000e-005	4.3500e-003	0.0000	11.8056	11.8056	2.4000e-004	2.6000e-004	11.8890
Total	3.6900e-003	2.4100e-003	0.0376	1.2000e-004	0.0161	8.0000e-005	0.0162	4.2800e-003	7.0000e-005	4.3500e-003	0.0000	11.8056	11.8056	2.4000e-004	2.6000e-004	11.8890

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7342	0.0000	0.7342	0.3719	0.0000	0.3719	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0986	2.7483	1.8712	3.1000e-003		0.0771	0.0771		0.0771	0.0771	0.0000	272.7556	272.7556	0.0882	0.0000	274.9610
Total	0.0986	2.7483	1.8712	3.1000e-003	0.7342	0.0771	0.8113	0.3719	0.0771	0.4491	0.0000	272.7556	272.7556	0.0882	0.0000	274.9610

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	2.4100e-003	0.0376	1.2000e-004	0.0161	8.0000e-005	0.0162	4.2800e-003	7.0000e-005	4.3500e-003	0.0000	11.8056	11.8056	2.4000e-004	2.6000e-004	11.8890
Total	3.6900e-003	2.4100e-003	0.0376	1.2000e-004	0.0161	8.0000e-005	0.0162	4.2800e-003	7.0000e-005	4.3500e-003	0.0000	11.8056	11.8056	2.4000e-004	2.6000e-004	11.8890

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4933	0.0000	0.4933	0.2009	0.0000	0.2009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0458	0.4668	0.3314	7.0000e-004		0.0201	0.0201		0.0185	0.0185	0.0000	61.9139	61.9139	0.0200	0.0000	62.4145
Total	0.0458	0.4668	0.3314	7.0000e-004	0.4933	0.0201	0.5134	0.2009	0.0185	0.2194	0.0000	61.9139	61.9139	0.0200	0.0000	62.4145

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	5.0000e-004	8.0800e-003	3.0000e-005	3.6600e-003	2.0000e-005	3.6700e-003	9.7000e-004	2.0000e-005	9.9000e-004	0.0000	2.6186	2.6186	5.0000e-005	6.0000e-005	2.6365
Total	7.9000e-004	5.0000e-004	8.0800e-003	3.0000e-005	3.6600e-003	2.0000e-005	3.6700e-003	9.7000e-004	2.0000e-005	9.9000e-004	0.0000	2.6186	2.6186	5.0000e-005	6.0000e-005	2.6365

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2220	0.0000	0.2220	0.0904	0.0000	0.0904	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.6238	0.4248	7.0000e-004		0.0175	0.0175		0.0175	0.0175	0.0000	61.9139	61.9139	0.0200	0.0000	62.4145
Total	0.0224	0.6238	0.4248	7.0000e-004	0.2220	0.0175	0.2395	0.0904	0.0175	0.1079	0.0000	61.9139	61.9139	0.0200	0.0000	62.4145

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	5.0000e-004	8.0800e-003	3.0000e-005	3.6600e-003	2.0000e-005	3.6700e-003	9.7000e-004	2.0000e-005	9.9000e-004	0.0000	2.6186	2.6186	5.0000e-005	6.0000e-005	2.6365
Total	7.9000e-004	5.0000e-004	8.0800e-003	3.0000e-005	3.6600e-003	2.0000e-005	3.6700e-003	9.7000e-004	2.0000e-005	9.9000e-004	0.0000	2.6186	2.6186	5.0000e-005	6.0000e-005	2.6365

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4699	0.0000	1.4699	0.4566	0.0000	0.4566	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3249	3.1296	2.9491	6.9500e-003		0.1267	0.1267		0.1165	0.1165	0.0000	610.4696	610.4696	0.1974	0.0000	615.4055
Total	0.3249	3.1296	2.9491	6.9500e-003	1.4699	0.1267	1.5965	0.4566	0.1165	0.5732	0.0000	610.4696	610.4696	0.1974	0.0000	615.4055

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3500e-003	3.3700e-003	0.0544	1.8000e-004	0.0246	1.1000e-004	0.0247	6.5300e-003	1.0000e-004	6.6300e-003	0.0000	17.6148	17.6148	3.3000e-004	3.8000e-004	17.7352
Total	5.3500e-003	3.3700e-003	0.0544	1.8000e-004	0.0246	1.1000e-004	0.0247	6.5300e-003	1.0000e-004	6.6300e-003	0.0000	17.6148	17.6148	3.3000e-004	3.8000e-004	17.7352

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6614	0.0000	0.6614	0.2055	0.0000	0.2055	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2028	5.7387	4.1129	6.9500e-003		0.1493	0.1493		0.1493	0.1493	0.0000	610.4689	610.4689	0.1974	0.0000	615.4048
Total	0.2028	5.7387	4.1129	6.9500e-003	0.6614	0.1493	0.8108	0.2055	0.1493	0.3548	0.0000	610.4689	610.4689	0.1974	0.0000	615.4048

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3500e-003	3.3700e-003	0.0544	1.8000e-004	0.0246	1.1000e-004	0.0247	6.5300e-003	1.0000e-004	6.6300e-003	0.0000	17.6148	17.6148	3.3000e-004	3.8000e-004	17.7352
Total	5.3500e-003	3.3700e-003	0.0544	1.8000e-004	0.0246	1.1000e-004	0.0247	6.5300e-003	1.0000e-004	6.6300e-003	0.0000	17.6148	17.6148	3.3000e-004	3.8000e-004	17.7352

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3.4 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5813	0.0000	1.5813	0.5179	0.0000	0.5179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6466	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3061	711.3061	0.2301	0.0000	717.0573
Total	0.3786	3.6466	3.4362	8.1000e-003	1.5813	0.1476	1.7288	0.5179	0.1358	0.6536	0.0000	711.3061	711.3061	0.2301	0.0000	717.0573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9200e-003	3.6200e-003	0.0604	2.1000e-004	0.0287	1.2000e-004	0.0288	7.6100e-003	1.1000e-004	7.7200e-003	0.0000	20.0984	20.0984	3.5000e-004	4.2000e-004	20.2320
Total	5.9200e-003	3.6200e-003	0.0604	2.1000e-004	0.0287	1.2000e-004	0.0288	7.6100e-003	1.1000e-004	7.7200e-003	0.0000	20.0984	20.0984	3.5000e-004	4.2000e-004	20.2320

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3.4 Grading - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7116	0.0000	0.7116	0.2330	0.0000	0.2330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2363	6.6866	4.7923	8.1000e-003		0.1740	0.1740		0.1740	0.1740	0.0000	711.3052	711.3052	0.2301	0.0000	717.0565
Total	0.2363	6.6866	4.7923	8.1000e-003	0.7116	0.1740	0.8856	0.2330	0.1740	0.4070	0.0000	711.3052	711.3052	0.2301	0.0000	717.0565

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9200e-003	3.6200e-003	0.0604	2.1000e-004	0.0287	1.2000e-004	0.0288	7.6100e-003	1.1000e-004	7.7200e-003	0.0000	20.0984	20.0984	3.5000e-004	4.2000e-004	20.2320
Total	5.9200e-003	3.6200e-003	0.0604	2.1000e-004	0.0287	1.2000e-004	0.0288	7.6100e-003	1.1000e-004	7.7200e-003	0.0000	20.0984	20.0984	3.5000e-004	4.2000e-004	20.2320

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8405	0.0000	0.8405	0.1107	0.0000	0.1107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0218	0.2096	0.1975	4.7000e-004		8.4800e-003	8.4800e-003		7.8000e-003	7.8000e-003	0.0000	40.8797	40.8797	0.0132	0.0000	41.2102
Total	0.0218	0.2096	0.1975	4.7000e-004	0.8405	8.4800e-003	0.8490	0.1107	7.8000e-003	0.1185	0.0000	40.8797	40.8797	0.0132	0.0000	41.2102

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	1.9000e-004	3.3200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.1338	1.1338	2.0000e-005	2.0000e-005	1.1411
Total	3.2000e-004	1.9000e-004	3.3200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.1338	1.1338	2.0000e-005	2.0000e-005	1.1411

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3.4 Grading - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3782	0.0000	0.3782	0.0498	0.0000	0.0498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0136	0.3843	0.2754	4.7000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	40.8796	40.8796	0.0132	0.0000	41.2101
Total	0.0136	0.3843	0.2754	4.7000e-004	0.3782	0.0100	0.3882	0.0498	0.0100	0.0598	0.0000	40.8796	40.8796	0.0132	0.0000	41.2101

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	1.9000e-004	3.3200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.1338	1.1338	2.0000e-005	2.0000e-005	1.1411
Total	3.2000e-004	1.9000e-004	3.3200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.1338	1.1338	2.0000e-005	2.0000e-005	1.1411

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3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1675	1.5275	1.9704	3.3000e-003		0.0646	0.0646		0.0608	0.0608	0.0000	284.1013	284.1013	0.0668	0.0000	285.7709
Total	0.1675	1.5275	1.9704	3.3000e-003		0.0646	0.0646		0.0608	0.0608	0.0000	284.1013	284.1013	0.0668	0.0000	285.7709

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.5589	0.2267	2.5400e-003	0.0988	2.9500e-003	0.1017	0.0285	2.8300e-003	0.0313	0.0000	255.6603	255.6603	0.0176	0.0374	267.2553
Worker	0.1140	0.0680	1.1703	4.1200e-003	0.5796	2.3100e-003	0.5819	0.1539	2.1200e-003	0.1561	0.0000	399.0708	399.0708	6.5800e-003	8.1300e-003	401.6581
Total	0.1285	0.6269	1.3970	6.6600e-003	0.6784	5.2600e-003	0.6837	0.1824	4.9500e-003	0.1874	0.0000	654.7311	654.7311	0.0241	0.0456	668.9134

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1324	2.8854	2.1895	3.3000e-003		0.1107	0.1107		0.1107	0.1107	0.0000	284.1010	284.1010	0.0668	0.0000	285.7706
Total	0.1324	2.8854	2.1895	3.3000e-003		0.1107	0.1107		0.1107	0.1107	0.0000	284.1010	284.1010	0.0668	0.0000	285.7706

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.5589	0.2267	2.5400e-003	0.0988	2.9500e-003	0.1017	0.0285	2.8300e-003	0.0313	0.0000	255.6603	255.6603	0.0176	0.0374	267.2553
Worker	0.1140	0.0680	1.1703	4.1200e-003	0.5796	2.3100e-003	0.5819	0.1539	2.1200e-003	0.1561	0.0000	399.0708	399.0708	6.5800e-003	8.1300e-003	401.6581
Total	0.1285	0.6269	1.3970	6.6600e-003	0.6784	5.2600e-003	0.6837	0.1824	4.9500e-003	0.1874	0.0000	654.7311	654.7311	0.0241	0.0456	668.9134

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0153	0.5915	0.2414	2.6500e-003	0.1052	3.1300e-003	0.1084	0.0304	3.0000e-003	0.0334	0.0000	267.0410	267.0410	0.0189	0.0392	279.2045
Worker	0.1154	0.0676	1.1996	4.2900e-003	0.6175	2.2900e-003	0.6198	0.1640	2.1100e-003	0.1661	0.0000	418.0884	418.0884	6.5000e-003	8.3600e-003	420.7408
Total	0.1307	0.6591	1.4410	6.9400e-003	0.7227	5.4200e-003	0.7281	0.1943	5.1100e-003	0.1994	0.0000	685.1294	685.1294	0.0254	0.0476	699.9453

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	3.5200e-003		0.1179	0.1179		0.1179	0.1179	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1411	3.0739	2.3325	3.5200e-003		0.1179	0.1179		0.1179	0.1179	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0153	0.5915	0.2414	2.6500e-003	0.1052	3.1300e-003	0.1084	0.0304	3.0000e-003	0.0334	0.0000	267.0410	267.0410	0.0189	0.0392	279.2045
Worker	0.1154	0.0676	1.1996	4.2900e-003	0.6175	2.2900e-003	0.6198	0.1640	2.1100e-003	0.1661	0.0000	418.0884	418.0884	6.5000e-003	8.3600e-003	420.7408
Total	0.1307	0.6591	1.4410	6.9400e-003	0.7227	5.4200e-003	0.7281	0.1943	5.1100e-003	0.1994	0.0000	685.1294	685.1294	0.0254	0.0476	699.9453

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0151	0.5877	0.2412	2.6000e-003	0.1052	3.1200e-003	0.1084	0.0304	2.9800e-003	0.0333	0.0000	261.9407	261.9407	0.0190	0.0386	273.9204
Worker	0.1096	0.0635	1.1590	4.2000e-003	0.6175	2.1500e-003	0.6196	0.1640	1.9700e-003	0.1660	0.0000	411.9857	411.9857	6.0500e-003	8.1000e-003	414.5495
Total	0.1247	0.6512	1.4002	6.8000e-003	0.7227	5.2700e-003	0.7280	0.1943	4.9500e-003	0.1993	0.0000	673.9264	673.9264	0.0250	0.0467	688.4699

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0151	0.5877	0.2412	2.6000e-003	0.1052	3.1200e-003	0.1084	0.0304	2.9800e-003	0.0333	0.0000	261.9407	261.9407	0.0190	0.0386	273.9204
Worker	0.1096	0.0635	1.1590	4.2000e-003	0.6175	2.1500e-003	0.6196	0.1640	1.9700e-003	0.1660	0.0000	411.9857	411.9857	6.0500e-003	8.1000e-003	414.5495
Total	0.1247	0.6512	1.4002	6.8000e-003	0.7227	5.2700e-003	0.7280	0.1943	4.9500e-003	0.1993	0.0000	673.9264	673.9264	0.0250	0.0467	688.4699

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0149	0.5822	0.2413	2.5400e-003	0.1052	3.0500e-003	0.1083	0.0304	2.9100e-003	0.0333	0.0000	256.4429	256.4429	0.0191	0.0379	268.2197
Worker	0.1037	0.0598	1.1236	4.1100e-003	0.6175	2.0000e-003	0.6195	0.1640	1.8400e-003	0.1658	0.0000	405.9670	405.9670	5.6400e-003	7.8700e-003	408.4519
Total	0.1186	0.6419	1.3649	6.6500e-003	0.7227	5.0500e-003	0.7277	0.1943	4.7500e-003	0.1991	0.0000	662.4099	662.4099	0.0248	0.0458	676.6716

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0149	0.5822	0.2413	2.5400e-003	0.1052	3.0500e-003	0.1083	0.0304	2.9100e-003	0.0333	0.0000	256.4429	256.4429	0.0191	0.0379	268.2197
Worker	0.1037	0.0598	1.1236	4.1100e-003	0.6175	2.0000e-003	0.6195	0.1640	1.8400e-003	0.1658	0.0000	405.9670	405.9670	5.6400e-003	7.8700e-003	408.4519
Total	0.1186	0.6419	1.3649	6.6500e-003	0.7227	5.0500e-003	0.7277	0.1943	4.7500e-003	0.1991	0.0000	662.4099	662.4099	0.0248	0.0458	676.6716

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933
Total	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0148	0.5815	0.2427	2.5100e-003	0.1056	3.0500e-003	0.1087	0.0305	2.9100e-003	0.0334	0.0000	253.1305	253.1305	0.0193	0.0375	264.7974
Worker	0.0988	0.0569	1.0965	4.0600e-003	0.6198	1.8900e-003	0.6217	0.1646	1.7400e-003	0.1663	0.0000	402.8633	402.8633	5.3000e-003	7.7100e-003	405.2933
Total	0.1136	0.6384	1.3391	6.5700e-003	0.7255	4.9400e-003	0.7304	0.1951	4.6500e-003	0.1997	0.0000	655.9938	655.9938	0.0246	0.0452	670.0907

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1416	3.0856	2.3415	4.0600e-003		0.1184	0.1184		0.1184	0.1184	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929
Total	0.1416	3.0856	2.3415	4.0600e-003		0.1184	0.1184		0.1184	0.1184	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0148	0.5815	0.2427	2.5100e-003	0.1056	3.0500e-003	0.1087	0.0305	2.9100e-003	0.0334	0.0000	253.1305	253.1305	0.0193	0.0375	264.7974
Worker	0.0988	0.0569	1.0965	4.0600e-003	0.6198	1.8900e-003	0.6217	0.1646	1.7400e-003	0.1663	0.0000	402.8633	402.8633	5.3000e-003	7.7100e-003	405.2933
Total	0.1136	0.6384	1.3391	6.5700e-003	0.7255	4.9400e-003	0.7304	0.1951	4.6500e-003	0.1997	0.0000	655.9938	655.9938	0.0246	0.0452	670.0907

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621
Total	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0146	0.5745	0.2414	2.4500e-003	0.1048	3.0100e-003	0.1078	0.0302	2.8800e-003	0.0331	0.0000	247.3145	247.3145	0.0193	0.0368	258.7523
Worker	0.0934	0.0540	1.0612	3.9600e-003	0.6151	1.7600e-003	0.6169	0.1634	1.6200e-003	0.1650	0.0000	395.7784	395.7784	4.9500e-003	7.5000e-003	398.1370
Total	0.1079	0.6285	1.3026	6.4100e-003	0.7199	4.7700e-003	0.7247	0.1936	4.5000e-003	0.1981	0.0000	643.0929	643.0929	0.0242	0.0443	656.8893

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1405	3.0621	2.3236	4.0200e-003		0.1175	0.1175		0.1175	0.1175	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617
Total	0.1405	3.0621	2.3236	4.0200e-003		0.1175	0.1175		0.1175	0.1175	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0146	0.5745	0.2414	2.4500e-003	0.1048	3.0100e-003	0.1078	0.0302	2.8800e-003	0.0331	0.0000	247.3145	247.3145	0.0193	0.0368	258.7523
Worker	0.0934	0.0540	1.0612	3.9600e-003	0.6151	1.7600e-003	0.6169	0.1634	1.6200e-003	0.1650	0.0000	395.7784	395.7784	4.9500e-003	7.5000e-003	398.1370
Total	0.1079	0.6285	1.3026	6.4100e-003	0.7199	4.7700e-003	0.7247	0.1936	4.5000e-003	0.1981	0.0000	643.0929	643.0929	0.0242	0.0443	656.8893

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621
Total	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.5718	0.2419	2.4100e-003	0.1048	2.9900e-003	0.1078	0.0302	2.8600e-003	0.0331	0.0000	243.6765	243.6765	0.0194	0.0363	254.9812
Worker	0.0891	0.0519	1.0369	3.9100e-003	0.6151	1.6600e-003	0.6168	0.1634	1.5300e-003	0.1649	0.0000	392.3070	392.3070	4.6700e-003	7.3700e-003	394.6213
Total	0.1036	0.6237	1.2788	6.3200e-003	0.7199	4.6500e-003	0.7246	0.1936	4.3900e-003	0.1980	0.0000	635.9835	635.9835	0.0240	0.0437	649.6025

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1405	3.0621	2.3236	4.0200e-003		0.1175	0.1175		0.1175	0.1175	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617
Total	0.1405	3.0621	2.3236	4.0200e-003		0.1175	0.1175		0.1175	0.1175	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.5718	0.2419	2.4100e-003	0.1048	2.9900e-003	0.1078	0.0302	2.8600e-003	0.0331	0.0000	243.6765	243.6765	0.0194	0.0363	254.9812
Worker	0.0891	0.0519	1.0369	3.9100e-003	0.6151	1.6600e-003	0.6168	0.1634	1.5300e-003	0.1649	0.0000	392.3070	392.3070	4.6700e-003	7.3700e-003	394.6213
Total	0.1036	0.6237	1.2788	6.3200e-003	0.7199	4.6500e-003	0.7246	0.1936	4.3900e-003	0.1980	0.0000	635.9835	635.9835	0.0240	0.0437	649.6025

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.5714	0.2432	2.3800e-003	0.1052	2.9900e-003	0.1082	0.0304	2.8600e-003	0.0332	0.0000	241.2755	241.2755	0.0195	0.0360	252.4990
Worker	0.0857	0.0505	1.0203	3.8800e-003	0.6175	1.5800e-003	0.6190	0.1640	1.4500e-003	0.1654	0.0000	390.8789	390.8789	4.4500e-003	7.3000e-003	393.1667
Total	0.1001	0.6219	1.2634	6.2600e-003	0.7227	4.5700e-003	0.7273	0.1943	4.3100e-003	0.1986	0.0000	632.1544	632.1544	0.0239	0.0433	645.6657

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.5714	0.2432	2.3800e-003	0.1052	2.9900e-003	0.1082	0.0304	2.8600e-003	0.0332	0.0000	241.2755	241.2755	0.0195	0.0360	252.4990
Worker	0.0857	0.0505	1.0203	3.8800e-003	0.6175	1.5800e-003	0.6190	0.1640	1.4500e-003	0.1654	0.0000	390.8789	390.8789	4.4500e-003	7.3000e-003	393.1667
Total	0.1001	0.6219	1.2634	6.2600e-003	0.7227	4.5700e-003	0.7273	0.1943	4.3100e-003	0.1986	0.0000	632.1544	632.1544	0.0239	0.0433	645.6657

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1594	0.9381	2.1114	4.0600e-003		0.0118	0.0118		0.0118	0.0118	0.0000	344.3479	344.3479	0.0128	0.0000	344.6686
Total	0.1594	0.9381	2.1114	4.0600e-003		0.0118	0.0118		0.0118	0.0118	0.0000	344.3479	344.3479	0.0128	0.0000	344.6686

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.5736	0.2441	2.3900e-003	0.1056	3.0000e-003	0.1086	0.0305	2.8700e-003	0.0333	0.0000	242.1999	242.1999	0.0196	0.0362	253.4664
Worker	0.0860	0.0507	1.0242	3.8900e-003	0.6198	1.5800e-003	0.6214	0.1646	1.4600e-003	0.1661	0.0000	392.3765	392.3765	4.4700e-003	7.3300e-003	394.6731
Total	0.1004	0.6243	1.2683	6.2800e-003	0.7255	4.5800e-003	0.7300	0.1951	4.3300e-003	0.1994	0.0000	634.5765	634.5765	0.0240	0.0435	648.1395

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2036

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1416	3.0856	2.3415	4.0600e-003		0.1184	0.1184		0.1184	0.1184	0.0000	344.3475	344.3475	0.0128	0.0000	344.6682
Total	0.1416	3.0856	2.3415	4.0600e-003		0.1184	0.1184		0.1184	0.1184	0.0000	344.3475	344.3475	0.0128	0.0000	344.6682

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.5736	0.2441	2.3900e-003	0.1056	3.0000e-003	0.1086	0.0305	2.8700e-003	0.0333	0.0000	242.1999	242.1999	0.0196	0.0362	253.4664
Worker	0.0860	0.0507	1.0242	3.8900e-003	0.6198	1.5800e-003	0.6214	0.1646	1.4600e-003	0.1661	0.0000	392.3765	392.3765	4.4700e-003	7.3300e-003	394.6731
Total	0.1004	0.6243	1.2683	6.2800e-003	0.7255	4.5800e-003	0.7300	0.1951	4.3300e-003	0.1994	0.0000	634.5765	634.5765	0.0240	0.0435	648.1395

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.5714	0.2432	2.3800e-003	0.1052	2.9900e-003	0.1082	0.0304	2.8600e-003	0.0332	0.0000	241.2755	241.2755	0.0195	0.0360	252.4990
Worker	0.0857	0.0505	1.0203	3.8800e-003	0.6175	1.5800e-003	0.6190	0.1640	1.4500e-003	0.1654	0.0000	390.8789	390.8789	4.4500e-003	7.3000e-003	393.1667
Total	0.1001	0.6219	1.2634	6.2600e-003	0.7227	4.5700e-003	0.7273	0.1943	4.3100e-003	0.1986	0.0000	632.1544	632.1544	0.0239	0.0433	645.6657

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2037

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.5714	0.2432	2.3800e-003	0.1052	2.9900e-003	0.1082	0.0304	2.8600e-003	0.0332	0.0000	241.2755	241.2755	0.0195	0.0360	252.4990
Worker	0.0857	0.0505	1.0203	3.8800e-003	0.6175	1.5800e-003	0.6190	0.1640	1.4500e-003	0.1654	0.0000	390.8789	390.8789	4.4500e-003	7.3000e-003	393.1667
Total	0.1001	0.6219	1.2634	6.2600e-003	0.7227	4.5700e-003	0.7273	0.1943	4.3100e-003	0.1986	0.0000	632.1544	632.1544	0.0239	0.0433	645.6657

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.5714	0.2432	2.3800e-003	0.1052	2.9900e-003	0.1082	0.0304	2.8600e-003	0.0332	0.0000	241.2755	241.2755	0.0195	0.0360	252.4990
Worker	0.0857	0.0505	1.0203	3.8800e-003	0.6175	1.5800e-003	0.6190	0.1640	1.4500e-003	0.1654	0.0000	390.8789	390.8789	4.4500e-003	7.3000e-003	393.1667
Total	0.1001	0.6219	1.2634	6.2600e-003	0.7227	4.5700e-003	0.7273	0.1943	4.3100e-003	0.1986	0.0000	632.1544	632.1544	0.0239	0.0433	645.6657

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2038

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.5714	0.2432	2.3800e-003	0.1052	2.9900e-003	0.1082	0.0304	2.8600e-003	0.0332	0.0000	241.2755	241.2755	0.0195	0.0360	252.4990
Worker	0.0857	0.0505	1.0203	3.8800e-003	0.6175	1.5800e-003	0.6190	0.1640	1.4500e-003	0.1654	0.0000	390.8789	390.8789	4.4500e-003	7.3000e-003	393.1667
Total	0.1001	0.6219	1.2634	6.2600e-003	0.7227	4.5700e-003	0.7273	0.1943	4.3100e-003	0.1986	0.0000	632.1544	632.1544	0.0239	0.0433	645.6657

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1582	0.9310	2.0953	4.0200e-003		0.0118	0.0118		0.0118	0.0118	0.0000	341.7193	341.7193	0.0127	0.0000	342.0375
Total	0.1582	0.9310	2.0953	4.0200e-003		0.0118	0.0118		0.0118	0.0118	0.0000	341.7193	341.7193	0.0127	0.0000	342.0375

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0143	0.5692	0.2422	2.3700e-003	0.1048	2.9800e-003	0.1078	0.0302	2.8500e-003	0.0331	0.0000	240.3511	240.3511	0.0194	0.0359	251.5316
Worker	0.0853	0.0503	1.0164	3.8600e-003	0.6151	1.5700e-003	0.6167	0.1634	1.4500e-003	0.1648	0.0000	389.3813	389.3813	4.4300e-003	7.2800e-003	391.6603
Total	0.0997	0.6195	1.2586	6.2300e-003	0.7199	4.5500e-003	0.7245	0.1936	4.3000e-003	0.1979	0.0000	629.7324	629.7324	0.0239	0.0432	643.1919

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2039

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1405	3.0621	2.3236	4.0200e-003		0.1175	0.1175		0.1175	0.1175	0.0000	341.7189	341.7189	0.0127	0.0000	342.0371
Total	0.1405	3.0621	2.3236	4.0200e-003		0.1175	0.1175		0.1175	0.1175	0.0000	341.7189	341.7189	0.0127	0.0000	342.0371

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0143	0.5692	0.2422	2.3700e-003	0.1048	2.9800e-003	0.1078	0.0302	2.8500e-003	0.0331	0.0000	240.3511	240.3511	0.0194	0.0359	251.5316
Worker	0.0853	0.0503	1.0164	3.8600e-003	0.6151	1.5700e-003	0.6167	0.1634	1.4500e-003	0.1648	0.0000	389.3813	389.3813	4.4300e-003	7.2800e-003	391.6603
Total	0.0997	0.6195	1.2586	6.2300e-003	0.7199	4.5500e-003	0.7245	0.1936	4.3000e-003	0.1979	0.0000	629.7324	629.7324	0.0239	0.0432	643.1919

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419
Total	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2040

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2041

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419
Total	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2041

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2042

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419
Total	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2042

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2043

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419
Total	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2043

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2044

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419
Total	0.1562	0.8992	2.1035	4.0400e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	343.0337	343.0337	0.0123	0.0000	343.3419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2044

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415
Total	0.1411	3.0739	2.3325	4.0400e-003		0.1179	0.1179		0.1179	0.1179	0.0000	343.0333	343.0333	0.0123	0.0000	343.3415

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5648	0.2436	2.2600e-003	0.1052	2.9600e-003	0.1082	0.0304	2.8300e-003	0.0332	0.0000	229.2437	229.2437	0.0194	0.0345	240.0002
Worker	0.0715	0.0456	0.9505	3.7300e-003	0.6175	1.2700e-003	0.6187	0.1640	1.1700e-003	0.1651	0.0000	381.6092	381.6092	3.6100e-003	7.0200e-003	383.7906
Total	0.0854	0.6104	1.1941	5.9900e-003	0.7227	4.2300e-003	0.7269	0.1943	4.0000e-003	0.1983	0.0000	610.8529	610.8529	0.0231	0.0415	623.7908

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2045

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0180	0.1034	0.2418	4.6000e-004		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	39.4292	39.4292	1.4200e-003	0.0000	39.4646
Total	0.0180	0.1034	0.2418	4.6000e-004		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	39.4292	39.4292	1.4200e-003	0.0000	39.4646

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5700e-003	0.0647	0.0279	2.5000e-004	0.0121	3.4000e-004	0.0124	3.4900e-003	3.3000e-004	3.8100e-003	0.0000	25.6159	25.6159	2.2000e-003	3.8700e-003	26.8232
Worker	7.4700e-003	5.0400e-003	0.1057	4.2000e-004	0.0710	1.3000e-004	0.0711	0.0189	1.2000e-004	0.0190	0.0000	43.4149	43.4149	3.7000e-004	7.9000e-004	43.6610
Total	9.0400e-003	0.0697	0.1336	6.7000e-004	0.0831	4.7000e-004	0.0835	0.0223	4.5000e-004	0.0228	0.0000	69.0309	69.0309	2.5700e-003	4.6600e-003	70.4842

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2045

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0162	0.3533	0.2681	4.6000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	39.4291	39.4291	1.4200e-003	0.0000	39.4645
Total	0.0162	0.3533	0.2681	4.6000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	39.4291	39.4291	1.4200e-003	0.0000	39.4645

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5700e-003	0.0647	0.0279	2.5000e-004	0.0121	3.4000e-004	0.0124	3.4900e-003	3.3000e-004	3.8100e-003	0.0000	25.6159	25.6159	2.2000e-003	3.8700e-003	26.8232
Worker	7.4700e-003	5.0400e-003	0.1057	4.2000e-004	0.0710	1.3000e-004	0.0711	0.0189	1.2000e-004	0.0190	0.0000	43.4149	43.4149	3.7000e-004	7.9000e-004	43.6610
Total	9.0400e-003	0.0697	0.1336	6.7000e-004	0.0831	4.7000e-004	0.0835	0.0223	4.5000e-004	0.0228	0.0000	69.0309	69.0309	2.5700e-003	4.6600e-003	70.4842

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.0924	0.2189	3.6000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	31.1497	31.1497	1.1500e-003	0.0000	31.1785
Total	0.7454	0.0924	0.2189	3.6000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	31.1497	31.1497	1.1500e-003	0.0000	31.1785

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0160	9.4200e-003	0.1903	7.2000e-004	0.1152	2.9000e-004	0.1155	0.0306	2.7000e-004	0.0309	0.0000	72.9143	72.9143	8.3000e-004	1.3600e-003	73.3411
Total	0.0160	9.4200e-003	0.1903	7.2000e-004	0.1152	2.9000e-004	0.1155	0.0306	2.7000e-004	0.0309	0.0000	72.9143	72.9143	8.3000e-004	1.3600e-003	73.3411

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2037

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0139	0.2870	0.2236	3.6000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	31.1497	31.1497	1.1500e-003	0.0000	31.1784
Total	0.7449	0.2870	0.2236	3.6000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	31.1497	31.1497	1.1500e-003	0.0000	31.1784

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0160	9.4200e-003	0.1903	7.2000e-004	0.1152	2.9000e-004	0.1155	0.0306	2.7000e-004	0.0309	0.0000	72.9143	72.9143	8.3000e-004	1.3600e-003	73.3411
Total	0.0160	9.4200e-003	0.1903	7.2000e-004	0.1152	2.9000e-004	0.1155	0.0306	2.7000e-004	0.0309	0.0000	72.9143	72.9143	8.3000e-004	1.3600e-003	73.3411

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3507
Total	0.7973	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3507

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0171	0.0101	0.2036	7.7000e-004	0.1232	3.1000e-004	0.1235	0.0327	2.9000e-004	0.0330	0.0000	77.9944	77.9944	8.9000e-004	1.4600e-003	78.4509
Total	0.0171	0.0101	0.2036	7.7000e-004	0.1232	3.1000e-004	0.1235	0.0327	2.9000e-004	0.0330	0.0000	77.9944	77.9944	8.9000e-004	1.4600e-003	78.4509

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2038

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3507
Total	0.7968	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3507

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0171	0.0101	0.2036	7.7000e-004	0.1232	3.1000e-004	0.1235	0.0327	2.9000e-004	0.0330	0.0000	77.9944	77.9944	8.9000e-004	1.4600e-003	78.4509
Total	0.0171	0.0101	0.2036	7.7000e-004	0.1232	3.1000e-004	0.1235	0.0327	2.9000e-004	0.0330	0.0000	77.9944	77.9944	8.9000e-004	1.4600e-003	78.4509

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7790					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0153	0.0985	0.2333	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.1923	33.1923	1.2300e-003	0.0000	33.2230
Total	0.7943	0.0985	0.2333	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.1923	33.1923	1.2300e-003	0.0000	33.2230

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0170	0.0100	0.2028	7.7000e-004	0.1227	3.1000e-004	0.1231	0.0326	2.9000e-004	0.0329	0.0000	77.6956	77.6956	8.8000e-004	1.4500e-003	78.1503
Total	0.0170	0.0100	0.2028	7.7000e-004	0.1227	3.1000e-004	0.1231	0.0326	2.9000e-004	0.0329	0.0000	77.6956	77.6956	8.8000e-004	1.4500e-003	78.1503

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2039

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7790					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.3058	0.2382	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.1923	33.1923	1.2300e-003	0.0000	33.2229
Total	0.7938	0.3058	0.2382	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.1923	33.1923	1.2300e-003	0.0000	33.2229

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0170	0.0100	0.2028	7.7000e-004	0.1227	3.1000e-004	0.1231	0.0326	2.9000e-004	0.0329	0.0000	77.6956	77.6956	8.8000e-004	1.4500e-003	78.1503
Total	0.0170	0.0100	0.2028	7.7000e-004	0.1227	3.1000e-004	0.1231	0.0326	2.9000e-004	0.0329	0.0000	77.6956	77.6956	8.8000e-004	1.4500e-003	78.1503

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493
Total	0.7969	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2040

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492
Total	0.7968	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2041

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493
Total	0.7969	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2041

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492
Total	0.7968	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2042

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493
Total	0.7969	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2042

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492
Total	0.7968	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2043

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493
Total	0.7969	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2043

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492
Total	0.7968	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2044

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493
Total	0.7969	0.0949	0.2339	3.9000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	33.3200	33.3200	1.1700e-003	0.0000	33.3493

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2044

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492
Total	0.7968	0.3070	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	1.1700e-003	0.0000	33.3492

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800
Total	0.0143	9.1000e-003	0.1897	7.4000e-004	0.1232	2.5000e-004	0.1235	0.0327	2.3000e-004	0.0330	0.0000	76.1448	76.1448	7.2000e-004	1.4000e-003	76.5800

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2045

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0103	0.0654	0.1613	2.7000e-004		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	22.9793	22.9793	8.1000e-004	0.0000	22.9995
Total	0.5496	0.0654	0.1613	2.7000e-004		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	22.9793	22.9793	8.1000e-004	0.0000	22.9995

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9400e-003	6.0300e-003	0.1265	5.0000e-004	0.0850	1.6000e-004	0.0851	0.0226	1.4000e-004	0.0227	0.0000	51.9771	51.9771	4.5000e-004	9.5000e-004	52.2716
Total	8.9400e-003	6.0300e-003	0.1265	5.0000e-004	0.0850	1.6000e-004	0.0851	0.0226	1.4000e-004	0.0227	0.0000	51.9771	51.9771	4.5000e-004	9.5000e-004	52.2716

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2045

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0103	0.2117	0.1649	2.7000e-004		8.5600e-003	8.5600e-003		8.5600e-003	8.5600e-003	0.0000	22.9793	22.9793	8.1000e-004	0.0000	22.9995
Total	0.5495	0.2117	0.1649	2.7000e-004		8.5600e-003	8.5600e-003		8.5600e-003	8.5600e-003	0.0000	22.9793	22.9793	8.1000e-004	0.0000	22.9995

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9400e-003	6.0300e-003	0.1265	5.0000e-004	0.0850	1.6000e-004	0.0851	0.0226	1.4000e-004	0.0227	0.0000	51.9771	51.9771	4.5000e-004	9.5000e-004	52.2716
Total	8.9400e-003	6.0300e-003	0.1265	5.0000e-004	0.0850	1.6000e-004	0.0851	0.0226	1.4000e-004	0.0227	0.0000	51.9771	51.9771	4.5000e-004	9.5000e-004	52.2716

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2045

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0758	0.2742	1.1863	2.1000e-003		8.7300e-003	8.7300e-003		8.7300e-003	8.7300e-003	0.0000	180.7464	180.7464	6.0700e-003	0.0000	180.8982
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0758	0.2742	1.1863	2.1000e-003		8.7300e-003	8.7300e-003		8.7300e-003	8.7300e-003	0.0000	180.7464	180.7464	6.0700e-003	0.0000	180.8982

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-003	8.8000e-004	0.0184	7.0000e-005	0.0124	2.0000e-005	0.0124	3.2800e-003	2.0000e-005	3.3000e-003	0.0000	7.5548	7.5548	6.0000e-005	1.4000e-004	7.5976
Total	1.3000e-003	8.8000e-004	0.0184	7.0000e-005	0.0124	2.0000e-005	0.0124	3.2800e-003	2.0000e-005	3.3000e-003	0.0000	7.5548	7.5548	6.0000e-005	1.4000e-004	7.5976

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2045

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0698	1.5086	1.2972	2.1000e-003		0.0500	0.0500		0.0500	0.0500	0.0000	180.7462	180.7462	6.0700e-003	0.0000	180.8980
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0698	1.5086	1.2972	2.1000e-003		0.0500	0.0500		0.0500	0.0500	0.0000	180.7462	180.7462	6.0700e-003	0.0000	180.8980

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-003	8.8000e-004	0.0184	7.0000e-005	0.0124	2.0000e-005	0.0124	3.2800e-003	2.0000e-005	3.3000e-003	0.0000	7.5548	7.5548	6.0000e-005	1.4000e-004	7.5976
Total	1.3000e-003	8.8000e-004	0.0184	7.0000e-005	0.0124	2.0000e-005	0.0124	3.2800e-003	2.0000e-005	3.3000e-003	0.0000	7.5548	7.5548	6.0000e-005	1.4000e-004	7.5976

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2749	0.2710	2.9000	6.3900e-003	0.9554	2.8900e-003	0.9583	0.2550	2.7000e-003	0.2577	0.0000	649.7722	649.7722	0.0385	0.0267	658.6800
Unmitigated	0.2749	0.2710	2.9000	6.3900e-003	0.9554	2.8900e-003	0.9583	0.2550	2.7000e-003	0.2577	0.0000	649.7722	649.7722	0.0385	0.0267	658.6800

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	742.14	742.14	742.14	2,536,005	2,536,005
Total	742.14	742.14	742.14	2,536,005	2,536,005

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.550761	0.065856	0.179366	0.118816	0.024700	0.007586	0.015311	0.004749	0.000700	0.000340	0.027741	0.000733	0.003342

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,659.6446	1,659.6446	0.1401	0.0170	1,668.2064
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,659.6446	1,659.6446	0.1401	0.0170	1,668.2064
NaturalGas Mitigated	0.1543	1.3181	0.5609	8.4100e-003		0.1066	0.1066		0.1066	0.1066	0.0000	1,526.5041	1,526.5041	0.0293	0.0280	1,535.5754
NaturalGas Unmitigated	0.1543	1.3181	0.5609	8.4100e-003		0.1066	0.1066		0.1066	0.1066	0.0000	1,526.5041	1,526.5041	0.0293	0.0280	1,535.5754

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	2.86056e+007	0.1543	1.3181	0.5609	8.4100e-003		0.1066	0.1066		0.1066	0.1066	0.0000	1,526.5041	1,526.5041	0.0293	0.0280	1,535.5754
Total		0.1543	1.3181	0.5609	8.4100e-003		0.1066	0.1066		0.1066	0.1066	0.0000	1,526.5041	1,526.5041	0.0293	0.0280	1,535.5754

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	2.86056e+007	0.1543	1.3181	0.5609	8.4100e-003		0.1066	0.1066		0.1066	0.1066	0.0000	1,526.5041	1,526.5041	0.0293	0.0280	1,535.5754
Total		0.1543	1.3181	0.5609	8.4100e-003		0.1066	0.1066		0.1066	0.1066	0.0000	1,526.5041	1,526.5041	0.0293	0.0280	1,535.5754

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	9.35825e+006	1,659,644 6	0.1401	0.0170	1,668.206 4
Total		1,659,644 6	0.1401	0.0170	1,668.206 4

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	9.35825e+006	1,659,644 6	0.1401	0.0170	1,668.206 4
Total		1,659,644 6	0.1401	0.0170	1,668.206 4

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.8535	0.3652	12.3851	2.0800e-003		0.0865	0.0865		0.0865	0.0865	0.0000	278.8639	278.8639	0.0242	4.7400e-003	280.8810
Unmitigated	12.7480	0.4523	19.8992	0.0201		1.2114	1.2114		1.2114	1.2114	127.1442	264.4917	391.6359	0.3984	8.6300e-003	404.1666

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7857					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.9207	0.3105	7.6092	0.0194		1.1430	1.1430		1.1430	1.1430	127.1442	244.3275	371.4718	0.3792	8.6300e-003	383.5226
Landscaping	0.3676	0.1419	12.2900	6.5000e-004		0.0685	0.0685		0.0685	0.0685	0.0000	20.1641	20.1641	0.0192	0.0000	20.6439
Total	12.7480	0.4523	19.8992	0.0201		1.2114	1.2114		1.2114	1.2114	127.1442	264.4917	391.6359	0.3984	8.6300e-003	404.1666

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7857					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0261	0.2234	0.0951	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	258.6997	258.6997	4.9600e-003	4.7400e-003	260.2371
Landscaping	0.3676	0.1419	12.2900	6.5000e-004		0.0685	0.0685		0.0685	0.0685	0.0000	20.1641	20.1641	0.0192	0.0000	20.6439
Total	8.8535	0.3652	12.3851	2.0800e-003		0.0865	0.0865		0.0865	0.0865	0.0000	278.8639	278.8639	0.0242	4.7400e-003	280.8810

7.0 Water Detail

7.1 Mitigation Measures Water

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	301.7114	2.5647	0.0628	384.5539
Unmitigated	301.7114	2.5647	0.0628	384.5539

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	77.9894 / 49.1672	301.7114	2.5647	0.0628	384.5539
Total		301.7114	2.5647	0.0628	384.5539

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	77.9894 / 49.1672	301.7114	2.5647	0.0628	384.5539
Total		301.7114	2.5647	0.0628	384.5539

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	284.8836	16.8361	0.0000	705.7871
Unmitigated	284.8836	16.8361	0.0000	705.7871

Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1403.43	284.8836	16.8361	0.0000	705.7871
Total		284.8836	16.8361	0.0000	705.7871

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1403.43	284.8836	16.8361	0.0000	705.7871
Total		284.8836	16.8361	0.0000	705.7871

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Laguna Woods General Plan and Zoning Update Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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APPENDIX C

VEHICLE MILES TRAVELED ANALYSIS MEMORANDUM

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MEMORANDUM

DATE: October 25, 2022

To: Christopher Macon, City Manager, City of Laguna Woods

FROM: Ambarish Mukherjee, P.E., AICP

SUBJECT: City of Laguna Woods General Plan and Zoning Code Update - Vehicle Miles Traveled Analysis

LSA has prepared this memorandum documenting the methodology and findings of the Vehicle Miles Traveled (VMT) analysis for the City of Laguna Woods' (City) General Plan and Zoning Code Update project.

BACKGROUND

On December 28, 2018, the California Office of Administrative Law cleared the revised California Environmental Quality Act (CEQA) guidelines for use. Among the changes to the guidelines was removal of vehicle delay and level of service analysis from consideration under CEQA. With the adopted guidelines, transportation impacts are now to be evaluated based on project-generated VMT.

PROJECT DESCRIPTION

The City prepared its 2021–2029 Housing Element Update in 2021. The State Housing Element law requires that the City update its General Plan and Zoning Code to be consistent with its new Housing Element within three years of its adoption. LSA is assisting the City in the preparation of a Program Environmental Impact Report (EIR) for its General Plan and Zoning Code Update. LSA has prepared a transportation analysis associated with the rezoning of the sites identified in the recently updated Housing Element as required by CEQA. The transportation analysis consists of a trip generation comparison of the existing and proposed uses, including a VMT evaluation.

ANALYSIS METRICS

The City has yet to adopt specific Senate Bill (SB) 743 guidelines and therefore, this VMT analysis was conducted using the methodologies and significance threshold criteria identified in the California Governor's Office of Planning and Research (OPR) *Technical Advisory On Evaluating Transportation Impacts in CEQA* (TA), dated December 2018. Given that the proposed project is a General Plan update, it can be considered a land use plan. For land use plans, the OPR TA recommends comparison of project VMT per capita or VMT per employee under the forecast/cumulative scenario to the corresponding base year VMT per capita/employee to determine the project impacts. If the forecast VMT per capita/employee is greater than 85 percent

of the existing regional VMT per capita/employee, then the General Plan update/project would constitute a significant impact.

As per the OPR TA, a region should be defined based on where the majority of project trips are contained. As such, a majority of the project trips are estimated to start or end within the region defined for VMT analysis purposes. Typically, it is the county boundary within which the majority of those trips are contained. While the City boundary can also be considered as the region, based on the understanding of the local trip patterns, it can be determined that the county can be considered as the region. Therefore, if the forecasted citywide VMT per capita with inclusion of the Housing Element is greater than 85 percent of the existing countywide VMT per capita, the project constitutes a significant VMT impact.

METHODOLOGY

The OPR TA provides multiple screening criteria for land use projects. One of the screening criterion is a daily trip threshold. If the land use project generates less than 110 daily trips, the project can be screened from a detailed VMT analysis. The project includes demolishing existing uses on the 17 residential overlay sites and replacing them with residential land uses. A trip generation analysis was conducted that looked at the differences in daily and peak hour trips between the existing land uses and the proposed land uses. That analysis is provided in Attachment A. It was observed that while the proposed residential land uses produce lower peak hour trips than existing land uses, the project would generate 746 more daily trips than the existing uses. As this is over the threshold of 110 daily trips, it was concluded that a detailed VMT analysis would be required to evaluate the project VMT impact for the General Plan and Zoning Code Update project.

The Orange County Transportation Analysis Model (OCTAM) was used to determine the VMT impact of the updated Housing Element. The Housing Element overlay consisted of 17 different sites in the City as shown in Figure 1 (provided in Attachment A). Fifteen of the 17 sites include existing non-residential land uses on them. For the overlay sites, the project proposes to remove the existing non-residential uses and replace them with residential uses. All 17 overlay sites are contained within four Traffic Analysis Zones (TAZs) in OCTAM.

As the project consisted of modification of the existing General Plan, a cursory review of current OCTAM forecast data was conducted to verify the consistency of the model with the General Plan land uses. As OCTAM is a socioeconomic data-based model, in order to review the consistency, the General Plan land uses needed conversion to socioeconomic data (households and employment). The General Plan residential uses included density ranges whereas non-residential uses consisted of building square footage as development intensities. Average residential densities along with the residential acreage were used to convert the residential land uses into dwelling unit estimates. Similarly, general rule of thumb conversion factors were used to convert non-residential development intensities to employees.

The resulting household and total employment estimates were compared to the current OCTAM forecast assumptions. While the dwelling unit/household estimates from the General Plan matched closely with current OCTAM forecast data, the employment estimates varied significantly. Given the

use of average densities for residential and general conversion factors for non-residential uses, a close match between General Plan land uses and OCTAM forecast data was not expected.

In addition to the forecast dataset, a review of model base year dataset and growth (forecast – base) was performed. It was observed that the model assumptions included minimal growth of households and employment for the City. Given the amount of growth assumed in the model, consistency of household estimates between the General Plan and the model, and use of generic assumptions to convert General Plan land uses to socioeconomic data, it was concluded that the forecast OCTAM assumptions are consistent with the existing City General Plan.

PROJECT TRAFFIC ANALYSIS ZONES UPDATE

As indicated before, the proposed project includes replacement of existing non-residential uses with new residential uses. Existing land use information was available for 15 overlay sites (out of 17 total sites). The existing land use information was converted to employees using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. The *ITE Trip Generation Manual* includes trip rates for different types of land uses by multiple unit types that were used to develop land use to employee conversion factors (employees per thousand square feet). Other data sources were also used for land use to employee conversion factors in case no data were available from ITE. No conversion factors were available for some types of land uses where a nominal number of employees were assumed for existing use (e.g., churches). The existing land uses were converted to employees and aggregated to the OCTAM model TAZs. Employment due to existing land uses was removed from the project location TAZs and the number of dwelling units from the project were added to the corresponding TAZs. Table A shows the overlay sites with existing land uses, model TAZ IDs, and estimated number of employees. Table B aggregates the number of dwelling units to be added and the existing number of employees to be removed from the OCTAM model TAZs.

OCTAM does not include the capability to split/add new TAZs and given that the VMT metrics will be evaluated for the entire City (with the General Plan Update), the socioeconomic data modifications were conducted directly to the project locations TAZs.

MODEL RUNS AND PROJECT VMT ESTIMATION

A horizon year (2045) model run was conducted using the adjusted socioeconomic data for the project location TAZs (modifications from Table B). No circulation/network modifications were identified for inclusion in the model network. The outputs from this updated model run were used to calculate the VMT per capita for the City with the proposed amendments. The detailed VMT tables are provided in Attachment B.

As indicated before, for land use plans, the OPR TA recommends use of VMT per capita to evaluate residential land uses and VMT per employee to evaluate non-residential land uses. Since the project contains only residential uses, LSA estimated VMT per capita for the City with addition of proposed residential land uses.

Table A: Overlay Sites - Existing Land Uses and Employment (Estimated)

Site ID	Model TAZ	Existing Use	Land Use	Land Use Quantity (KSF)	Total Employees (Estimated)
1	1448	Town Centre Vacant Lot		0.0	-
2	1456	Pacific Hills Calvary Chapel Parking Lot		0.0	-
3	1456	Rossmoor Electric	Retail	11.4	16
3	1456		Medical Building	11.4	16
4	1456	Saddleback Golf Cars	Retail	20.1	29
5	1448	Laguna Woods Self Storage	Storage	92.9	5
5	1448		Office	1.6	5
6	1448	Animal Hospital	Animal Hospital	5.5	9
7	1447	PS Business Park (excludes Jack-in-the-Box)	Storage	81.1	5
7	1447		Retail	14.0	20
7	1447		Restaurant	1.2	10
8	1456	Smart Parke	Retail	23.5	34
9	1451	McCormick & Son Mortuary	Mortuary	7.4	5
10	1447	Lutheran Church of the Cross	Church	15.6	5
11	1448	Geneva Presbyterian Church	Church	46.8	5
12	1451	Saint Nicholas Catholic Church	Church	43.0	5
13	1451	Temple Judea	Temple	11.0	15
14	1451	Laguna Country United Methodist Church	Church	32.1	5
15	1448	Medical Building in Town Centre	Medical Office	35.5	147
16	1451		Restaurant	7.9	40
16	1451	Willow Tree Center East	Retail	3.5	5
16	1451		Adult Daycare	10.4	34
17	1451	Helm Center	Medical Office	9.2	38

Source: LSA (2022).

KSF = thousand square feet

TAZ = Traffic Analysis Zone

Table B: OCTAM Socioeconomic Changes by TAZ

Model TAZ	Total Employment (to remove)	Total Dwelling Units (to add)
1447	40	205
1448	171	606
1451	146	370
1456	95	278

Source: LSA (2022).

OCTAM = Orange County Transportation Analysis Model

TAZ = Traffic Analysis Zones

PROJECT VMT ANALYSIS

The proposed project (General Plan Update) would constitute a significant impact if the forecast VMT metric for the project is greater than 85 percent of the regional existing VMT metric. Hence the proposed project would constitute a significant impact if the 2045 citywide VMT per capita is greater than 85 percent of the Orange County VMT per capita (threshold). As can be seen from the following Table C, citywide VMT per capita with the project is lower than the Orange County regional threshold.

Table C: 2045 City of Laguna Woods VMT Per Capita (With Project) Comparison with Regional Threshold

	2045 City of Laguna Woods (With Project)	Existing Entire Orange County¹	Threshold²	Significant Impact
VMT per Capita	13.0	17.9	15.2	No

Source: LSA (2022).

¹ Obtained from Final Draft Guidelines For Evaluating Vehicle Miles Traveled Under CEQA for the County of Orange, September 17, 2020.

² 85% of the regional average (17.9*0.85=15.2).

CEQA = California Environmental Quality Act

VMT = vehicle miles traveled

Also, given that the project included demolition of existing non-residential uses, LSA reviewed the effect of non-residential use removal by evaluating the efficiency metric of origin-destination (OD) VMT per service population. Given that the OPR recommends use of different efficiency metrics to evaluate residential and non-residential uses, to evaluate a combined effect of both types of land uses such as with this project, OD VMT per service population was used. Similar to VMT per capita, 2045 citywide OD VMT per service population was compared with Orange County existing VMT per service population to assess project VMT impact. As shown in the following Table D, the 2045 citywide VMT per service population is lower than the Orange County regional threshold.

Table D: 2045 City of Laguna Woods VMT Per Service Population (With Project) Comparison with Regional Threshold

	2045 City of Laguna Woods (With Project)	Existing Entire Orange County¹	Threshold²	Significant Impact
VMT per Service Population	24.9	30.3	25.7	No

Source: LSA (2022).

¹ Obtained from LSA 2016 no project OCTAM run.

² 85% of the regional average (30.3*0.85=25.7).

OCTAM = Orange County Transportation Analysis Model

VMT = vehicle miles traveled

Hence the General Plan and Zoning Code Update due to the 2021–2029 Housing Element Update does not constitute a significant VMT impact.

CONCLUSIONS

Based on the recommendations from the OPR TA, the proposed Laguna Woods General Plan and Zoning Code Update project was evaluated based on VMT per capita. An assessment of the trip generation comparison of existing uses and proposed uses did not screen out from a VMT analysis. A detailed VMT analysis was conducted for the project based on the OCTAM model, using the County of Orange as the region. Based on the significance threshold criteria determined within the OPR TA, the VMT per capita of the project does not exceed the threshold. A secondary analysis was performed to evaluate the VMT per service population. The results also showed that the project would not exceed the threshold based on service population. Therefore, the project would have a less than significant transportation impact.

Attachments: A – Trip Generation Analysis
B – Detailed VMT Calculation Worksheets

ATTACHMENT A

TRIP GENERATION ANALYSIS

Table A: City of Laguna Woods Housing Element – Residential Overlay Sites

	Existing Use	Existing Use	Potential Density Range ¹	Parcel Size (acre) ¹	Proposed Use	Address	APN No.	Existing Land Use Designation	Proposed Land Use	Existing Zoning District	Proposed Overlay Zoning District
1	Town Centre Vacant Lot	-	30 - 50 du per acre	1.800	90 du apartments	N/A (East of 24331 El Toro Road)	616-012-29	Commercial	No Change	Community Commerical	Residential High Density Overlay
2	Pacific Hills Calvary Chapel Parking Lot	-	30 - 50 du per acre	0.696	35 du apartments	24481 Moulton Parkway	621-131-38	Commercial	No Change	Professional & Administrative Office	Residential High Density Overlay
3	Rossmoor Electric	11,405 sf retail, 11,405 sf medical building	30 - 50 du per acre	1.232	62 du apartments	24351 Moulton Parkway	621-131-21	Commercial	No Change	Community Commerical	Residential High Density Overlay
4	Saddleback Golf Cars	20,133 sf retail	30 - 50 du per acre	1.235	62 du apartments	23252 Via Campo Verde	621-131-26	Commercial	No Change	Community Commerical	Residential High Density Overlay
5	Laguna Woods Self Storage	92,890 sf storage, 1,620 sf office	30 - 50 du per acre	5.249	263 du apartments	24151 Moulton Parkway	616-012-19	Commercial	No Change	Community Commerical	Residential High Density Overlay
6	Animal Hospital	5,529 sf animal hospital	30 - 50 du per acre	0.760	38 du apartment	24271 El Toro Road	616-012-03	Commercial	No Change	Community Commerical	Residential High Density Overlay
7	PS Business Park (excludes Jack-in-the-Box)	81,100 sf storage, 14,000 sf retail, 1,200 sf restaurant	30 - 50 du per acre	2.867	144 du apartments	23582 Moulton Parkway	616-021-30	Commercial	No Change	Community Commerical	Residential High Density Overlay
8	Smart Parke	23,498 sf retail	30 - 50 du per acre	2.373	119 du apartments	24334 El Toro Road	621-211-09	Commercial	No Change	Community Commerical	Residential High Density Overlay
9	McCormick & Son Mortuary	7,392 sf mortuary	20 - 30 du per acre	1.411	43 du apartments	25002 Moulton Parkway	621-091-016	Commercial	No Change	Community Commerical	Residential Medium-Low Density Overlay
10	Lutheran Church of the Cross	15,644 sf church	15 - 20 du per acre	3.028	61 du apartments	24231 El Toro Road	616-041-01	Community Facilities	No Change	Community Facilities-Private	Residential Medium-Low Density Overlay
11	Geneva Presbyterian Church	46,802 sf church	15 - 20 du per acre	3.955	80 du apartments	24301 El Toro Road	616-191-05 & 616-191-06	Community Facilities	No Change	Community Facilities-Private	Residential Medium-Low Density Overlay
12	Saint Nicholas Catholic Church	43,034 sf church	15 - 20 du per acre	4.596	92 du apartments	24252 El Toro Road	621-121-11	Community Facilities	No Change	Community Facilities-Private	Residential Medium-Low Density Overlay
13	Temple Judea	10,972 sf temple	15 - 20 du per acre	1.757	36 du apartments	24512 Moulton Parkway	621-121-18	Community Facilities	No Change	Community Facilities-Private	Residential Low Density Overlay
14	Laguna Country United Methodist Church	32,132 sf church	20 - 30 du per acre	3.899	117 du apartments	24442 Moulton Parkway	621-121-23	Community Facilities	No Change	Community Facilities-Private	Residential Medium Density Overlay
15	Medical Building in Town Centre	35,508 sf medical office	30 - 50 du per acre	2.690	135 du apartments	24331 El Toro Road	616-012-24	Commercial	No Change	Professional & Administrative Office	Residential High Density Overlay
16	Willow Tree Center East	7,858 sf restaurant, 3,487 sf retail, 10,364 sf adult daycare	15 - 20 du per acre	3.095	62 du apartments	24260 El Toro Road	621-121-30	Commercial	No Change	Community Commerical	Residential Low Density Overlay
17	Helm Center	9,222 sf medical office	20 - 30 du per acre	0.650	20 du apartments	24902 Moulton Parkway	621-091-15	Commercial	No Change	Professional & Administrative Office	Residential Medium-Low Density Overlay

¹ Potential density range and parcel size referenced from the City of Laguna Woods 2021-2029 General Plan Housing Element Update.

For the purposes of trip generation, the highest residential density was used.

Table B: City of Laguna Woods Housing Element – Trip Generation Summary

Sites	Site Address	ADT	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Site 1, Town Centre Vacant Lot	East of 24331 El Toro Road	607	9	27	36	29	16	45
Site 2, Pacific Hills Calvary Chapel Parking Lot	24481 Moulton Parkway	236	4	10	14	11	6	17
Site 3, Rossmoor Electric	24351 Moulton Parkway	-614	-38	1	-37	-31	-58	-89
Site 4, Saddleback Golf Cars	23252 Via Campo Verde	-678	-23	0	-23	-46	-56	-102
Site 5, Laguna Woods Self Storage	24151 Moulton Parkway	1,620	19	76	95	77	41	118
Site 6, Animal Hospital	24271 El Toro Road	137	-9	4	-5	4	-5	-1
Site 7, Public Storage Business Park	23582 Moulton Parkway	-450	-40	6	-34	-26	-45	-71
Site 8, Smart Parke	24334 El Toro Road	-477	-21	14	-7	-40	-55	-95
Site 9, McCormick & Son Mortuary	25002 Moulton Parkway	234	3	12	15	12	5	17
Site 10, Lutheran Church of the Cross	24231 El Toro Road	292	3	16	19	17	6	23
Site 11, Geneva Presbyterian Church	24301 El Toro Road	183	-1	18	17	16	1	17
Site 12, Saint Nicholas Catholic Church	24252 El Toro Road	293	0	23	23	20	5	25
Site 13, Temple Judea	24512 Moulton Parkway	213	2	10	12	10	5	15
Site 14, Laguna Country United Methodist Church	24442 Moulton Parkway	545	6	31	37	30	13	43
Site 15, Medical Building at Town Centre	24331 El Toro Road	-368	-73	17	-56	1	-73	-72
Site 16, Willow Tree Center East	24260 El Toro Road	-879	-67	-32	-99	-26	-30	-56
Site 17, Helm Medical Center	24902 Moulton Parkway	-148	-17	1	-16	-3	-18	-21
Total		746	-243	234	-9	55	-242	-187

Note:

The table shows the net trip generation at each site.

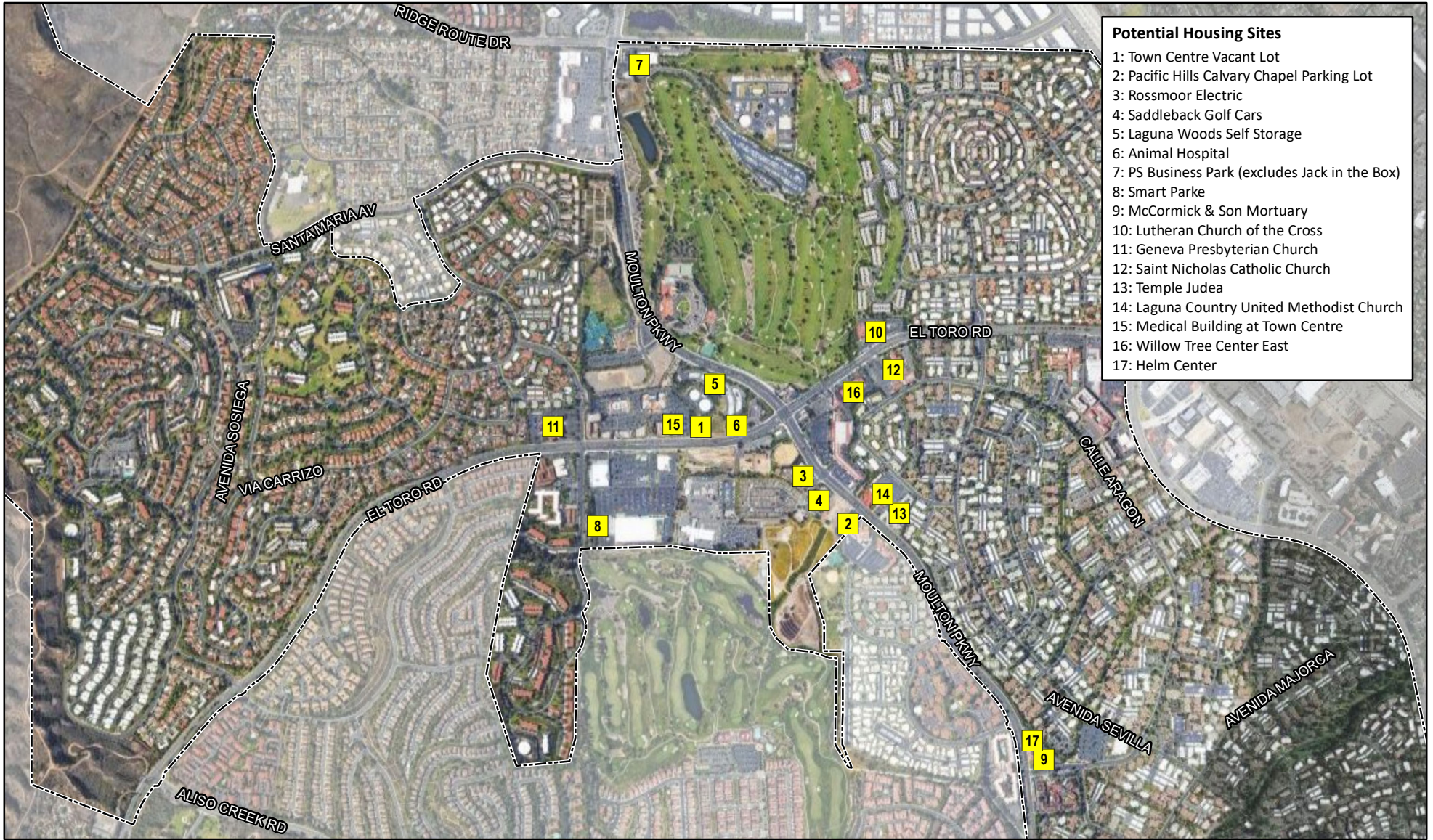


FIGURE 1

LSA

LEGEND

- Potential Housing Sites
- City of Laguna Woods



0 750 1500
FEET

SOURCE: Google Maps (2021)

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City of Laguna Woods
General Plan and Zoning Update
Housing Sites Key Map



Site 1, Town Centre Vacant Lot Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Existing Trip Generation									
Vacant Lot			0	0	0	0	0	0	0
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	90	DU	607	9	27	36	29	16	45
Net Trip Generation (Project - Existing)			607	9	27	36	29	16	45

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

² Site 1 is 1.800 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit



Site 2, Pacific Hills Calvary Chapel Parking Lot Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Existing Trip Generation									
Parking Lot			0	0	0	0	0	0	0
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	35	DU	236	4	10	14	11	6	17
Net Trip Generation (Project - Existing)			236	4	10	14	11	6	17

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

² Site 2 is 0.696 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit



Site 3, Rossmoor Electric Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Strip Retail Plaza (<40k)		TSF	54.45	1.42	0.94	2.36	3.30	3.29	6.59
Medical-Dental Office Building		TSF	36.00	2.45	0.65	3.10	1.18	2.75	3.93
Existing Trip Generation									
Rossmoor Electric	11.405	TSF	621	16	11	27	38	37	75
Medical Office Building	11.405	TSF	411	28	7	35	13	32	45
Total Trip Generation	22.810	TSF	1,032	44	18	62	51	69	120
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	62	DU	418	6	19	25	20	11	31
Net Trip Generation (Project - Existing)			(614)	(38)	1	(37)	(31)	(58)	(89)

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 822 - Strip Retail Plaza (<40k)

² Site 3 is 1.232 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 4, Saddleback Golf Cars Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Strip Retail Plaza (<40k)		TSF	54.45	1.42	0.94	2.36	3.30	3.29	6.59
Existing Trip Generation									
Saddleback Golf Cars	20.133	TSF	1,096	29	19	48	66	67	133
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	62	DU	418	6	19	25	20	11	31
Net Trip Generation (Project - Existing)			(678)	(23)	0	(23)	(46)	(56)	(102)

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 822 - Strip Retail Plaza (<40k)

² Site 4 is 1.235 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 5, Laguna Woods Self Storage Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Mini-Warehouse		TSF	1.45	0.05	0.04	0.09	0.07	0.08	0.15
General Office Building		TSF	10.84	1.34	0.18	1.52	0.24	1.20	1.44
Existing Trip Generation									
Self Storage	92.890	TSF	135	5	3	8	7	7	14
Office	1.620	TSF	18	2	0	2	0	2	2
Total Trip Generation	94.510	TSF	153	7	3	10	7	9	16
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	263	DU	1,773	26	79	105	84	50	134
Net Trip Generation (Project - Existing)			1,620	19	76	95	77	41	118

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 221 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 151 - Mini-Warehouse

Land Use Code 710 - General Office Building

² Site 5 is 5.249 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 6, Animal Hospital Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Animal Hospital		TSF	21.50	2.44	1.20	3.64	1.41	2.12	3.53
Existing Trip Generation									
Animal Hospital	5.529	TSF	119	13	7	20	8	12	20
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	38	DU	256	4	11	15	12	7	19
Net Trip Generation (Project - Existing)			137	(9)	4	(5)	4	(5)	(1)

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 640 - Animal Hospital/Veterinary Clinic

² Site 6 is 0.760 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 7, Public Storage Business Park Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Mini-Warehouse		TSF	1.45	0.05	0.04	0.09	0.07	0.08	0.15
Strip Retail Plaza (<40k)		TSF	54.45	1.42	0.94	2.36	3.30	3.29	6.59
Fast-Food Restaurant Without Drive-Through Window		TSF	450.49	25.04	18.14	43.18	16.61	16.60	33.21
Existing Trip Generation									
Self-Storage	81.100	TSF	118	4	3	7	6	6	12
Strip Retail Plaza (<40k)	14.000	TSF	762	20	13	33	46	46	92
Fast-Food Restaurant Without Drive-Through Window	1.200	TSF	541	30	22	52	20	20	40
Total Trip Generation			1,421	54	38	92	72	72	144
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	144	DU	971	14	44	58	46	27	73
Net Trip Generation (Project - Existing)			(450)	(40)	6	(34)	(26)	(45)	(71)

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 151 - Mini-Warehouse

Land Use Code 822 - Strip Retail Plaza (<40k)

Land Use Code 933 - Fast-Food Restaurant Without Drive-Through Window

² Site 7 is 2.867 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 8, Smart Parke Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Strip Retail Plaza (<40k)		TSF	54.45	1.42	0.94	2.36	3.30	3.29	6.59
Existing Trip Generation									
Smart Parke	23.498	TSF	1,279	33	22	55	78	77	155
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	119	DU	802	12	36	48	38	22	60
Net Trip Generation (Project - Existing)			(477)	(21)	14	(7)	(40)	(55)	(95)

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 822 - Strip Retail Plaza (<40k)

² Site 8 is 2.373 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 9, McCormick & Son Mortuary Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Church		TSF	7.60	0.20	0.12	0.32	0.22	0.27	0.49
Existing Trip Generation									
McCormick & Son Mortuary	7.392	TSF	56	1	1	2	2	2	4
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	43	DU	290	4	13	17	14	7	21
Net Trip Generation (Project - Existing)			234	3	12	15	12	5	17

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 560 - Church

² Site 9 is 1.411 acre. The proposed land use is based on 30 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 10, Lutheran Church of the Cross Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Church		TSF	7.60	0.20	0.12	0.32	0.22	0.27	0.49
Existing Trip Generation									
Lutheran Church of the Cross	15,644	TSF	119	3	2	5	3	5	8
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	61	DU	411	6	18	24	20	11	31
Net Trip Generation (Project - Existing)			292	3	16	19	17	6	23

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 560 - Church

² Site 10 is 3.028 acre. The proposed land use is based on 20 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 11, Geneva Presbyterian Church Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Church		TSF	7.60	0.20	0.12	0.32	0.22	0.27	0.49
Existing Trip Generation									
Geneva Presbyterian Church	46,802	TSF	356	9	6	15	10	13	23
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	80	DU	539	8	24	32	26	14	40
Net Trip Generation (Project - Existing)			183	(1)	18	17	16	1	17

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 560 - Church

² Site 11 is 3.955 acre. The proposed land use is based on 20 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 12, Saint Nicholas Catholic Church Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Church		TSF	7.60	0.20	0.12	0.32	0.22	0.27	0.49
Existing Trip Generation									
Saint Nicholas Catholic Church	43.034	TSF	327	9	5	14	9	12	21
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	92	DU	620	9	28	37	29	17	46
Net Trip Generation (Project - Existing)			293	0	23	23	20	5	25

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 560 - Church

² Site 12 is 4.596 acre. The proposed land use is based on 20 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 13, Temple Judea Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Synagogue		TSF	2.70	0.14	0.08	0.22	0.15	0.12	0.27
Existing Trip Generation									
Temple Judea	10.972	TSF	30	2	0	2	2	1	3
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	36	DU	243	4	10	14	12	6	18
Net Trip Generation (Project - Existing)			213	2	10	12	10	5	15

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 561 - Synagogue

² Site 13 is 1.757 acre. The proposed land use is based on 20 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



**Site 14, Laguna Country United Methodist Church
Trip Generation Summary**

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Church		TSF	7.60	0.20	0.12	0.32	0.22	0.27	0.49
Existing Trip Generation									
Laguna Country United Methodist Church	32.132	TSF	244	6	4	10	7	9	16
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	117	DU	789	12	35	47	37	22	59
Net Trip Generation (Project - Existing)			545	6	31	37	30	13	43

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 560 - Church

² Site 14 is 3.899 acre. The proposed land use is based on 30 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 15, Medical Building at Town Centre Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Medical-Dental Office Building		TSF	36.00	2.45	0.65	3.10	1.18	2.75	3.93
Existing Trip Generation									
Medical Building at Town Centre	35,508	TSF	1,278	87	23	110	42	98	140
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	135	DU	910	14	40	54	43	25	68
Net Trip Generation (Project - Existing)			(368)	(73)	17	(56)	1	(73)	(72)

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 720 - Medical-Dental Office Building - Stand-Alone

² Site 15 is 2.690 acre. The proposed land use is based on 50 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 16, Willow Tree Center East Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
High-Turnover (Sit-Down) Restaurant		TSF	107.20	5.26	4.31	9.57	5.52	3.53	9.05
Strip Retail Plaza (<40k)		TSF	54.45	1.42	0.94	2.36	3.30	3.29	6.59
General Office Building		TSF	10.84	1.34	0.18	1.52	0.24	1.20	1.44
Existing Trip Generation									
High-Turnover (Sit-Down) Restaurant	7.858	TSF	842	41	34	75	43	28	71
Pass-by Reduction (43% PM)			(31)	0	0	0	(18)	(13)	(31)
Strip Retail Plaza (<40k)	3.487	TSF	374	18	15	33	19	13	32
Adult Day Care	10.364	TSF	112	14	2	16	2	13	15
Total Trip Generation	21.709	TSF	1,297	73	51	124	46	41	87
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	62	DU	418	6	19	25	20	11	31
Net Trip Generation (Project - Existing)			(879)	(67)	(32)	(99)	(26)	(30)	(56)

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 932 - High-Turnover (Sit-down) Restaurant

Land Use Code 822 - Strip Retail Plaza (<40k)

Land Use Code 710 - General Office Building

² Site 16 is 3.095 acre. The proposed land use is based on 20 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet



Site 17, Helm Medical Center Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Low-Rise)		DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
Medical-Dental Office Building		TSF	36.00	2.45	0.65	3.10	1.18	2.75	3.93
Existing Trip Generation									
Helm Medical Center	7.858	TSF	283	19	5	24	9	22	31
Project Trip Generation									
Multifamily Housing (Low-Rise) ²	20	DU	135	2	6	8	6	4	10
Net Trip Generation (Project - Existing)			(148)	(17)	1	(16)	(3)	(18)	(21)

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).

Land Use Code 220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit

Land Use Code 720 - Medical-Dental Office Building - Stand-Alone

² Site 17 is 0.650 acre. The proposed land use is based on 30 du per acre.

ADT = average daily trips

DU = dwelling unit

TSF = thousand square feet

ATTACHMENT B

DETAILED VMT CALCULATION WORKSHEETS



Attachment B - VMT Calculation Worksheet
Housing Element Overlay, City of Laguna Woods - VMT Analysis

	2045 City of Laguna Woods (With Project)	Existing entire Orange County *	Threshold **
Households	13,928		
Population	23,028	3,179,626	
Homebased (HB) VMT	298,685	56,757,571	
HB VMT per capita	13.0	17.9	15.2

*: Obtained from Final Draft Guidelines For Evaluating Vehicle Miles Traveled Under CEQA for the County of Orange, September 17, 2020

** : 85% of the regional average (17.9*0.85=15.2)



Attachment B - VMT Calculation Worksheet
Housing Element Overlay, City of Laguna Woods - VMT Analysis

	2045 City of Laguna Woods (With Project)	Existing entire Orange County *	Threshold **
Population	23,028	3,179,626	
Employment	7,005	1,710,147	
Service Population	30,033	4,889,773	
Origin-Destination (OD) VMT	748,776	148,018,452	
OD VMT per service population	24.9	30.3	25.7

*: Obtained from LSA 2016 no project OCTAM run

** : 85% of the regional average (30.3*0.85=25.7)

APPENDIX D

HISTORIC PERIOD BUILD ENVIRONMENT SENSITIVITY STUDY

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MEMORANDUM

DATE: June 20, 2022

To: Ryan Bensley, LSA Project Manager

FROM: Casey Tibbet, M.A., Associate/Cultural Resources Manager/Architectural Historian

SUBJECT: Historic-Period Built Environment Sensitivity Study for the Laguna Woods General Plan and Zoning Code Update, Laguna Woods, California (LSA Project Number LWD2102.03)

LSA, under contract to the City of Laguna Woods (City), has prepared a sensitivity study for the historic-period (50 years of age or older) built environment as part of the environmental documentation for the City's General Plan and Zoning Code Update. More specifically, this study focuses on the 17 potential housing sites identified by the City as part of the Housing Element Update, which was adopted in February 2022. As described below, LSA researched these 17 sites and surveyed the historic-period buildings in order to provide preliminary determinations regarding potential historical significance.

Research Methods

LSA conducted research to determine when the buildings on the properties were constructed and identify their architects and builders and any associations with historically significant events. To accomplish this, LSA obtained information from City staff regarding dates of construction and/or occupancy and then cross-checked this information with Orange County Assessor parcel data, historic aerial photographs, and news articles.

Field Survey Methods

LSA conducted a virtual survey of the buildings using Google street view and other online images to determine whether any of the historic-period buildings appears to be architecturally significant.

Research and Field Survey Results

Research determined that seven properties, consisting of six different entities, are developed with historic-period (pre-1973) buildings (refer to Table A below). Of these, one is developed with an animal hospital and five are developed with religious facilities; all date to between 1966 and 1973. More detailed descriptions of each of the six properties with historic-period buildings are provided below.

Table A: Potential Housing Sites with Historic-Period Buildings

APN	Address	Name	Year Built	Year Built Source
616-012-03	24271 El Toro Road	Laguna Hills Animal Hospital	1968	Orange County Assessor var.
616-041-01	24231 El Toro Road	Lutheran Church of the Cross	1966-1968	Orange County Assessor var., <i>Independent Sun</i> 1966, <i>Tustin News</i> 1966a, 1967a, 1968
616-191-05 616-191-06	24301 El Toro Road	Geneva Presbyterian Church	1968	<i>Tustin News</i> 1968a, 1968b
621-121-11	24525 El Toro Road	Saint Nicholas Catholic Church	1966	<i>Tustin News</i> 1966b; <i>Los Angeles Times</i> 1966; <i>The Tidings</i> 1966
621-121-18	24512 Moulton Parkway	Temple Judea	1967 1971	Orange County Assessor var., <i>Tustin News</i> 1967b, <i>Los Angeles Times</i> 1971a
621-121-23	24442 Moulton Parkway	Laguna Country United Methodist Church	1966 1972-1973	City of Laguna Woods var., <i>Los Angeles Times</i> 1971b; Aerial photographs var.

Laguna Hills Animal Hospital (24271 El Toro Road)

Research indicates that the Laguna Hills Animal Hospital was built in 1968, although the earliest certificate of occupancy found by the City dates to 1972 (Orange County Assessor var.; City of Laguna Woods var.). A review of historic aerial photographs confirms that the property was developed sometime after 1967 and before 1970 (Aerial Photographs var.). Research did not identify the architect or builder. The facility was mentioned in the *Los Angeles Times* in 1970 because veterinarians, Dr. Dennis Morley and Dr. Norman Fohrman, were examining two lion cubs who were being relocated from Florida to Lion Country Safari (*Los Angeles Times* 1970). cursory research did not find the veterinarians or the facility to be associated with historically important events or contributions to the field of veterinary medicine. Based on an online reconnaissance-level survey of the building, there does not appear to be anything unique or exceptional about its design and it does not appear to be architecturally significant.

Lutheran Church of the Cross (24231 El Toro Road)

Research indicates that the Lutheran Church of the Cross was built in 1966 (Orange County Assessor var.; *Independent Sun* 1966; *Tustin News* 1966a). News articles reveal that in April 1966 a permit was issued for construction of a sanctuary and in October 1966 it was reported that Daniel Bros Construction Co. of Costa Mesa had been awarded the \$190,000 contract for construction of the church (*Tustin News* 1966a; *Independent Sun* 1966). The church was completed in 1967 (*Tustin News* 1967a). No information was found regarding the architect of the church. cursory research for Daniel Bros. Construction Co. indicates the company was formed in 1952 by Gerald V. Daniel and was initially

based in Pasadena (*Pasadena Independent* 1952). An online search of news articles revealed only a dozen mentions of the company, however, most of the Orange County papers are not easily accessible online and were not searched. Some of the company's projects include the Los Angeles County Arboretum administration building and gatehouse in Arcadia (1955), civic center improvements in Arcadia and Monterey Park (1956 and 1959, respectively), and Faith Lutheran Church in Pasadena (1962). No articles after 1966 were found. Based on this limited research, the builder does not appear to be historically significant. Based on an online reconnaissance-level survey of the building, the sanctuary includes Mid-Century Modern elements such as the symmetrical plan, the arches, and the steeple and may be significant for its architecture.

[Geneva Presbyterian Church \(24301 El Toro Road\)](#)

Although both the Orange County Assessor and City data indicate the Geneva Presbyterian Church was built in 1970, the property appears to have been graded in a 1967 aerial photograph and a 1968 news article says the dedication for the new sanctuary occurred in August 1968 (Orange County Assessor var.; City of Laguna Wood var.; Aerial Photographs var.; *Tustin News* 1968a, 1968b). News articles also reveal that the church was organized in 1965 and designed by the renowned architectural firm William L. Pereira and Associates (*Tustin News* 1968a). Additional research was not conducted since the association with William L. Pereira and Associates is enough to give the church a high potential for significance.

[Saint Nicholas Catholic Church \(24252 El Toro Road\)](#)

Saint Nicholas Catholic Church was built in 1966 (Orange County Assessor var.; City of Laguna Woods var.; *The Tidings* 1966). According to news articles, it was constructed by builder/developer S. V. Hunsaker and Sons, Inc. (*Los Angeles Times* 1966). Although no architect for the church was found, it is possible that it was designed by S. V. Hunsaker and Sons, Inc. since they reportedly designed at least some of the homes they built. cursory research indicates that S. V. Hunsaker and Sons, Inc. was primarily a developer of residential properties. From 1954 to 1961, Richard Hunsaker and his father S. V. Hunsaker, Sr. built and sold more than 5,000 homes through various joint ventures (Leagle, Inc. 2019). Richard, his brother S. V. Hunsaker, Jr. and others also subdivided land and built homes during this period (Leagle, Inc. 2019). In 1957, the three Hunsakers formed a partnership, SRS Investments, and in 1962, S. V. Hunsaker & Sons was formed (Leagle, Inc. 2019). The Hunsakers are not mentioned in *Tract Housing in California, 1945-1973: A Context for National Register Evaluation*, which is a fairly comprehensive study of tract housing in California and significant people/companies associated with it (California Department of Transportation 2011). Furthermore, S. V. Hunsaker & Sons does not appear to be known for the design or construction of churches, therefore, it seems unlikely that Saint Nicholas Church would be one of the best representations of their work and, in any case, based on an online reconnaissance-level survey of the building, it does not appear to be exceptional from an architectural standpoint.

[Temple Judea \(24512 Moulton Parkway\)](#)

Permits were issued for Temple Judea in July 1967 and a certificate of occupancy was issued in 1968 (*Tustin News* 1967b; City of Laguna Woods var.). By 1970, aerial photographs reveal that only the part of the building closest to Moulton Parkway had been constructed (Aerial Photographs var.). In 1971, a news article reported that Richard Grossgold Associates, Seal Beach architects, had been chosen to

design the new Temple Judea sanctuary; this was the final phase of the master plan for the Temple (*Los Angeles Times* 1971a). cursory research revealed that in 1967, Grossgold apparently worked for the Rossmore Corporation and formed Richard Grossgold Associates in 1969 (*Tustin News* 1967c; Bizapedia 2012-2022). Richard Grossgold Associates has designed numerous projects including the following around the time of Saint Nicholas Catholic Church: Leisure World Clubhouse 3 and Clubhouse 4; the Helena model residence (Costa del Sol) for the Mission Viejo Company; and 181 condominium units in Kuffel Canyon (Lake Arrowhead area) (Historical Society of Laguna Woods 2007; Calishpere n.d.; *Press-Telegram* 1972). A 1971 article announced that Richard Grossgold Associates, architects and land planners, were expanding their services to include complete environmental design services “backed by the experience of designing more than 3,000 apartments to conventional and FHA/HUD standards” (*Los Angeles Times* 1971c). Based on this limited research, Mr. Grossgold does not appear to be a master architect. Based on the online reconnaissance-level survey of Temple Judea, it does not appear to be an exceptional example of a particular architectural style.

[Laguna Country United Methodist Church \(24442 Moulton Parkway\)](#)

The Laguna Country United Methodist Church was built in 1966 with a new sanctuary added in 1972-1973 (City of Laguna Woods var.; *Los Angeles Times* 1971b; Aerial Photographs var.). Research did not identify the architect or builder. Based on the online reconnaissance-level survey, the church embodies characteristics of the Sweeping Roof and Mid-Century Modern styles and may be potentially significant for its architecture.

Conclusion

Of the 17 potential housing sites identified by the City as part of the Housing Element Update adopted in February 2022, seven have buildings that date to the historic-period (pre-1973). These are developed with an animal hospital and five religious facilities (two of the properties are developed with one church). The buildings were constructed between 1966 and 1973.

Based on the limited research and an online reconnaissance-level survey, only three of the buildings appear to be potentially significant. These are: Lutheran Church of the Cross, Geneva Presbyterian Church, and Laguna Country United Methodist Church. While all of the buildings will require formal evaluations for significance simply based on their age, these three appear to have potential to be historically significant for their architecture and/or as the work of a master architect.

Recommendations

It is recommended that all of the properties that have buildings that are 50 years of age or older be evaluated for historical significance using the California Register of Historical Resources criteria and any applicable criteria adopted by the City of Laguna Woods. At a minimum, the buildings should be documented and evaluated on the appropriate Department of Parks and Recreation (DPR) 523 forms and should be assigned California Historical Resources status codes. In addition, consideration should be given to the potential for the churches to be contributors to a thematic historic district composed of religious institutions associated with the themes of Leisure World and/or postwar (1945-1973) development.

Table B: Potential Historical Significance

APN	Address	Name	Year Built	Potential Significance
616-012-03	24271 El Toro Road	Laguna Hills Animal Hospital	1968	None apparent
616-041-01	24231 El Toro Road	Lutheran Church of the Cross	1966-1968	Architecture
616-191-05 616-191-06	24301 El Toro Road	Geneva Presbyterian Church	1968	Architecture and architect (William L. Pereira Associates)
621-121-11	24525 El Toro Road	Saint Nicholas Catholic Church	1966	None apparent
621-121-18	24512 Moulton Parkway	Temple Judea	1967 1971	None apparent
621-121-23	24442 Moulton Parkway	Laguna Country United Methodist Church	1966 1972-1973	Architecture

References

Aerial Photographs

- Var. 1963, 1967, 1972, and 1980 aerial photographs accessed online in May and June 2022 at: <https://www.historicaerials.com/viewer>
- Var. 1970 aerial photographs accessed online in June 2022 at: <https://www.ocgis.com/ocpw/historicalimagery/>

Bizapedia

- 2012–2022 Grossgold Associates. Accessed online in June 2022 at: <https://www.bizapedia.com/ca/grossgold-associates.html>

Calisphere

- n.d. Costa del Sol, Helena, plan H-r. Online archive of California. Accessed online in June 2022 at: <https://calisphere.org/item/ark:/13030/kt5x0nd3j6/>

City of Laguna Woods

- Var. Building permit and other planning information provided by XXX in May 2022.

Historical Society of Laguna Woods

- 2007 *The Historian, Preserving Today for Tomorrow*. Clubhouse 4, When is a Cul-de-Sac Not a Cul-de-Sac?. Volume 1, Number 3. Accessed online in June 2022 at: https://lagunawoods.history.org/wp-content/uploads/2016/02/2007_07_Journal.pdf

Independent Sun

- 1966 New Stores Soon in Bixby Knolls Area. August 7, page 66.

Leagle, Inc.

- 2019 Hunsaker v. Commissioner. Accessed online in June 2022 at: <https://www.leagle.com/decision/1975101934hrtcm9851794>

Los Angeles Times

- 1966 Two Churches Building Near Pasaverde. February 27, page 126.
- 1970 Nice Kitty! (photo caption). February 9, page 6.
- 1971A Architects Chosen. April 4, page 144.
- 1971b Drive Nets \$343,632 for Church. October 14, page 8.
- 1971 Architect Firm Offers New Services. May 2, page 140.
- 1973 Worship with us this Week. April 21, page 23.

Orange County Assessor

- Var. Information included parcel data purchased from Orange County in 2022.

Pasadena Independent

1952 Certificate of Fictitious Firm Name. February 15, page 39.

Press-Telegram

1972 Grossgold firm obtains canyon job. June 18, page 63.

The Tidings

1966 Church Completed in Laguna Hills. September 16, page 6.

Tustin News

1966a PD Patios on Nisson Okayed. April 14, page 2.

1966b Catholic Milestone (photo caption). January 5, page 8.

1967a Church of the Cross Plans 2 Christmas Observances. December 21, page 7.

1967b Building. July 20, page 16.

1967c Summer Goings-on Told Through Photos. Negotiations completed (photo caption). August 17, page 15.

1968a Dedication of Geneva Church Set Sunday in Laguna Hills. August 22, page 10.

1968b New Presbyterian Church Dedicated in El Toro Area. August 29, page 3.