

---

## 4.2 Air Quality

---

This section discusses existing air quality, summarizes existing air quality regulations, and evaluates potential air quality impacts associated with the proposed Project. The analysis is based on Project air pollution emissions estimates calculated using the California Emissions Estimator Model (CalEEMod) provided in Appendix C of this Draft Environmental Impact Report (Draft EIR).

### 4.2.1 Setting

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

The climate in the City is defined by its terrain of coastal mountains and hillsides, and its geographical location in Southern California by the Pacific Ocean. This results in rarely interrupted climate that is mild and tempered by cool ocean breezes year-round with sparse precipitation. On occasion, like most areas in the coastal plain, periods of hot weather, winter storms, and Santa Ana winds do occur.

### 4.2.2 Existing Conditions

#### Local Air Quality

The South Coast Air Quality Management District (SCAQMD), which has divided the Basin into air monitoring areas, maintains a network of air quality monitoring stations throughout the Basin. The Project site is located in the Central Orange County Coastal area (Source Receptor Area [SRA] 20). The nearest monitoring station is the Mission Viejo station (ARB 30002), approximately 9 miles north of the proposed Project site. Criteria pollutants at this station include O<sub>3</sub>, CO, coarse particulates (PM<sub>10</sub>), and fine particulates (PM<sub>2.5</sub>). Approximately 25 miles from the Project site are the Anaheim and Costa Mesa (Closed 2017) Monitoring Stations. The Anaheim station monitors the criteria pollutants NO<sub>2</sub> and the Costa Mesa station previously monitored NO<sub>2</sub> and SO<sub>2</sub>.

The air quality trends from these three stations are used to represent the ambient air quality in the vicinity of the proposed Project site. Table 4.2-1 lists the ambient air quality data monitored at these stations within the past three years of available data from 2018, 2019, and 2020. It should be noted that there are no available SO<sub>2</sub> data points in Orange County for the past 3 years due to the

closure of the Costa Mesa monitoring station in 2017. Therefore, the maximum one-hour values shown for SO<sub>2</sub> reflect the last data available from 2015 to 2017.

**Table 4.2-1. Project Area Air Quality Monitoring Summary 2018–2020**

Pollutant	Standard	2018	2019	2020
<b>Carbon Monoxide (CO) – Mission Viejo Monitoring Station (26081 Via Pera)</b>				
Maximum 1-hr concentration (ppm)		1.2	1.0	1.0
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hr concentration (ppm)		0.9	0.8	0.8
Number of days exceeded:	State: $\geq$ 9.0 ppm	0	0	0
	Federal: $\geq$ 9.0 ppm	0	0	0
<b>Ozone (O<sub>3</sub>) – Mission Viejo Monitoring Station (26081 Via Pera)</b>				
Maximum 1-hr concentration (ppm)		0.121	0.106	0.171
Number of days exceeded:	State: > 0.09 ppm	2	3	20
Maximum 8-hr concentration (ppm)		0.088	0.087	0.122
Number of days exceeded:	State: > 0.07 ppm	9	11	32
	Federal: > 0.07 ppm	9	11	32
<b>Coarse (<math>\leq</math> 10 microns) Particulate Matter (PM<sub>10</sub>) – Mission Viejo Monitoring Station (26081 Via Pera)</b>				
Maximum 24-hr concentration ( $\mu\text{g}/\text{m}^3$ )		55.6	45.1	55.1
Number of days exceeding standard:	State: > 50 $\mu\text{g}/\text{m}^3$	1	0	2
	Federal: > 150 $\mu\text{g}/\text{m}^3$	0	0	0
Annual arithmetic mean ( $\mu\text{g}/\text{m}^3$ )		19.1	16.7	16.8
Exceeded for the year:	State: >20 $\mu\text{g}/\text{m}^3$	No	No	No
<b>Fine (<math>\leq</math> 2.5 microns) Particulate (PM<sub>2.5</sub>) – Mission Viejo Monitoring Station (26081 Via Pera)</b>				
Maximum 24-hr concentration ( $\mu\text{g}/\text{m}^3$ )		38.9	20.8	44.8
Number of days exceeded:	Federal: > 35 $\mu\text{g}/\text{m}^3$	1	0	2
Annual arithmetic mean ( $\mu\text{g}/\text{m}^3$ )		8.31	7.1	9.3
Exceeded for the year:	State: > 12 $\mu\text{g}/\text{m}^3$	No	No	No
	Federal: > 15 $\mu\text{g}/\text{m}^3$	No	No	No
<b>Nitrogen Dioxide (NO<sub>2</sub>) – Anaheim Monitoring Station (1630 W. Pampas Lane)</b>				
Maximum 1-hr concentration (ppm)		0.066	0.059	0.070
Number of days exceeded:	State: > 0.18 ppm	0	0	0
	Federal: > 0.10 ppm	0	0	0
Annual arithmetic mean concentration (ppm)		0.013	0.013	0.013
Exceeded for the year:	State: > 0.030 ppm	No	No	No
	Federal: > 0.053 ppm	No	No	No

Pollutant	Standard	2018	2019	2020
<b>Sulfur Dioxide (SO<sub>2</sub>) – Costa Mesa Monitoring Station Years 2015 to 2017 (2850 Mesa Verde Drive East)</b>				
Maximum 24-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	State: > 0.04 ppm	ND	ND	ND
Maximum 1-hr concentration (ppm)		0.0045	0.0033	0.0019
Number of days exceeded:	State: > 0.25 ppm	0	0	0
	Federal: > 0.075 ppm	0	0	0

Sources: United States Environmental Protection Agency (EPA), [www.epa.gov/airdata/](http://www.epa.gov/airdata/); and California Air Resources Board (CARB), [www.arb.ca.gov/adam/welcome.html](http://www.arb.ca.gov/adam/welcome.html).

µg/m<sup>3</sup> = micrograms per cubic meter

ND = no data available

PM<sub>10</sub> = particulate matter less than 10 microns in size

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

ppm = parts per million

### Air Pollution Constituents and Attainment Status

The United States Environmental Protection Agency (EPA) has identified and established ground-level concentration criteria for air pollutants known to have detrimental human health impacts. Under the federal Clean Air Act (FCAA), the EPA is charged with establishing National Ambient Air Quality Standards (NAAQS) for each criteria pollutant based on the concentration required to protect public health and welfare. In addition, the State of California has implemented the California Ambient Air Quality Standards (CAAQS). The six criteria pollutants are ozone (O<sub>3</sub>) (precursor emissions include NO<sub>x</sub> and reactive organic gases (ROG), CO, particulate matter (PM), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead.

The California Air Resources Board (CARB) coordinates and oversees both State and federal air pollution control programs in the State. The CARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the EPA and local air quality districts. The CARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. Data collected at these stations are used by the CARB and EPA to classify air basins as attainment, nonattainment, nonattainment-transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the ambient air quality standards (NAAQS and CAAQS).

The air quality data collected from monitoring stations are also used to monitor progress in attaining air quality standards. Table 4.2-2 lists the attainment status for the criteria pollutants in the Basin. The Orange County portion of the South Coast Air Basin (SCAB) is designated as a nonattainment area for the federal O<sub>3</sub> and PM<sub>2.5</sub> standards and is also a nonattainment area for the state standards for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>.

**Table 4.2-2. Attainment Status of Criteria Pollutants in the South Coast Air Basin**

<b>Pollutant</b>	<b>State</b>	<b>Federal</b>
1-hour Ozone (O <sub>3</sub> )	Non-attainment	Not Applicable
8-hour Ozone (O <sub>3</sub> )	Non-attainment	Extreme Non-attainment
PM <sub>10</sub>	Non-attainment	Attainment/Maintenance
PM <sub>2.5</sub>	Non-attainment	Non-attainment
Carbon Monoxide (CO)	Attainment	Attainment/Maintenance
Nitrogen Dioxide (NO <sub>2</sub> )	Attainment	Attainment/Maintenance
Sulfur Dioxide (SO <sub>2</sub> )	Attainment	Attainment
Lead (Pb)	Attainment	Attainment

Source: California Air Resources Board (CARB), [www.arb.ca.gov/adam/welcome.html](http://www.arb.ca.gov/adam/welcome.html).

### **Sensitive Receptors and Locations**

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

### **4.2.3 Related Policies and Regulations**

#### **Federal Regulations**

##### Clean Air Act and United States Environmental Protection Agency

At the federal level, the EPA has been charged with implementing and enforcing national air quality programs. EPA's air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was first enacted in 1955. The FCAA was amended in 1963, 1965, 1970, 1977, and 1990. The FCAA required EPA 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). Federal standards include both primary and secondary standards. Primary standards set 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, damage to animals, crops, vegetation, and buildings.

Under the FCAA, state and local agencies in areas that exceed the NAAQS are required to develop SIPs to show how they will achieve the NAAQS by specific dates. The FCAA requires that projects receiving federal funds demonstrate conformity to the approved SIP and local air quality attainment Plan for the region. Conformity with the SIP requirements would satisfy the FCAA requirements.

## State Regulations

### California Clean Air Act

Assembly Bill (AB) 2595, the California Clean Air Act (CCAA), was signed into law in 1988 and requires all areas of the State to achieve and maintain the CAAQS. The CCAA mandates achievement of the maximum degree of emission reductions possible from vehicular and other mobile sources in order to attain the CAAQS by the earliest practical date. The CARB, which became part of the California Environmental Protection Agency (Cal/EPA) in 1991, is responsible for ensuring implementation of the CCAA and federal CAA and for regulating emissions from consumer products and motor vehicles within California. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the Basin because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS. All air basins have been formally designated as attainment or non-attainment for each CAAQS.

Non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emission vehicles by fleet operators; and
- Sufficient control strategies to achieve a 5 percent or more annual reduction in emissions or 15 percent or more in a period of 3 years for ROG<sub>s</sub>, NO<sub>X</sub>, CO, and PM<sub>10</sub>. However, air basins may use an alternative emission reduction strategy that achieves a reduction of less than 5 percent per year under certain circumstances.

### California Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2011, and is administered by the California Building Standards Commission. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020. Local jurisdictions are permitted to adopt more stringent requirements,

as State law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction and demolition ordinances and defers to them as the ruling guidance provided, they establish a minimum 65 percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. The State Building Code provides the minimum standard that buildings must meet in order to be certified for occupancy, which is generally enforced by the local building official.

### **Local Regulations**

#### South Coast Air Quality Management District

The SCAQMD is the air pollution control agency for Orange County, as well as the urban portions of Los Angeles, Riverside, and San Bernardino Counties. The agency's primary responsibility is ensuring that the federal and state ambient air quality standards are attained and maintained in the Basin. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities. All projects within the Basin are subject to SCAQMD rules and regulations in effect at the time of construction.

As stated previously, the AQMP is the SIP for the Basin. The AQMP is a regional blueprint for implementing air quality standards within the Basin and some portions of the Salton Sea Air Basin that are under SCAQMD's jurisdiction. The AQMP asserts that the most effective way to reduce air pollution impacts is to reduce emissions from mobile sources. Additionally, the AQMP relies on partnerships between governmental agencies at the federal, state, regional, and local level. These agencies, which are comprised of USEPA, CARB, local governments, Southern California Association of Governments (SCAG) and the SCAQMD, are the primary agencies that implement the AQMP programs. The AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts, as well as includes integrated strategies and measures to meet the NAAQS.

During construction activities, the proposed Project would be subject to applicable rules established by the SCAQMD including, but not limited to:

- Rule 402 (Nuisance): This rule prohibits the discharge from any source whatsoever such quantities of air contaminant or other materials 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 person or the public, or which cause, or have a natural tendency to cause, injury, or damage to business or property.

- **Rule 403 (Fugitive Dust):** This rule requires fugitive dust sources to implement Best Available Control Measures (BACMs) for all sources and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM10 suppression techniques are summarized below.
  - a. Portions of the construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized in a manner acceptable to the City.
  - b. All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
  - c. All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
  - d. The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
  - e. Where vehicles leave the construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.
- **Rule 1113 (Architectural Coatings):** This rule requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce Reactive Organic Gas (ROG)/Volatile Organic Compounds (VOC) emissions from the use of these coatings, primarily by placing limits on the ROG/VOC content of various coating categories.

### Laguna Niguel General Plan

The Laguna Niguel General Plan (LNGP) was adopted in 1992 to set forth objectives, policies, standards, and programs for land use and new development, Circulation and Public access, and Service Systems for the Community as a whole. The following goals and policies are applicable to air quality:

#### *Land Use Element*

**Goal 1.** A well-balanced mixture of land uses that meet the residential, commercial, open space, and public service needs of residents.

- **Policy 1.** Encourage the development of land uses that contribute to the goal of a well-balanced community.

**Goal 3.** Compatible relationships between land uses in the community.

- **Policy 3.1.** Ensure that effective buffers between residential and nonresidential uses are established and maintained.
- **Policy 3.3.** Reduce land use conflicts between residential and nonresidential uses.
- **Policy 3.4.** Ensure that residential densities are compatible with the surrounding land uses and buildings are in scale with the neighborhood character.

**Goal 4.** Urban design that provides community gathering areas and other pedestrian spaces.

- **Policy 4.3.** Require, where feasible, the development of open spaces and places for people to gather within commercial and office complexes.
- **Policy 4.4.** Provide, where feasible, pedestrian walkways and linkages between residential, commercial, office, open space/recreation facilities, and other public places.

**Goal 5.** Preservation and enhancement of the natural setting of the City.

- **Policy 5.3.** Strive to maintain or improve the City's existing environmental quality.

**Goal 6.** Enhanced community identity for residents, visitors, and commuters.

- **Policy 6.1.** Provide for the development of pedestrian gathering areas to promote social interaction.

#### *Open Space/Parks/Conservation Element*

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

- **Policy 3.1.** Implement the Bikeway, and Hiking and Equestrian Plans.
- **Policy 3.3.** Expand existing regional trail facilities where attractive opportunities exist or can be created.

#### *Circulation Element*

**Goal 3.** A circulation system that maximizes efficiency through the use of transportation system management and demand management strategies.

- **Policy 3.3.** Implement intersection capacity improvements where feasible and justified by traffic demand.

**Goal 4.** An efficient public transportation system that provides mobility to all City residents, employees, and visitors.

- **Policy 4.1.** Support the efforts of the Orange County Transit Authority (OCTA) to provide additional local and express bus service to Laguna Niguel.
- **Policy 4.5.** Encourage developers to work with agencies providing transit service with the objective of maximizing the potential for transit use by residents and/or visitors.
- **Policy 4.6.** Encourage the provision of safe, attractive, and clearly identifiable transit stops and related high-quality pedestrian facilities throughout the community.

**Goal 5.** An efficient bicycle, equestrian and pedestrian circulation system that encourages these alternative forms of transportation.

- **Policy 5.1.** Require proposed developments, whenever feasible, to dedicate easements for Class I bikeways and to provide additional right-of-way for Class II bike lanes in the project vicinity on all major or primary roadways or other roadways where deemed appropriate.
- **Policy 5.5.** Encourage the provision of showers, changing rooms, and an accessible and secure area for bicycle storage at all new and existing developments and public places.
- **Policy 5.6.** Require developers, whenever feasible, to provide facilities for pedestrian travel such as sidewalks, and to design developments to provide pedestrian access to the



development on sidewalks and not require that pedestrians use driveways to access development.

#### **4.2.4 Thresholds of Significance**

Criteria for determining the significance of impacts related to air quality are based on criteria contained in Appendix G of the State CEQA Guidelines and the City's CEQA Manual. The City's CEQA Manual screens out small residential projects of less than 50 dwelling units that involve no demolition, no overlapping grading and construction phases, construction duration of less than one year, and no sensitive receptors within 100 meters of the site. The Project site is located within 100 meters of existing homes to the north, and therefore the City determined an analysis of construction and operational air pollution emissions would be performed for the Project as contained in this Section. Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the proposed project would have a significant impact on air quality. The proposed Project could have a significant impact on the environment if it would result in any of the following.

***Threshold AQ-1*** *Conflict with or obstruct implementation of the applicable air quality plan?*

***Threshold AQ-2*** *Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard?*

***Threshold AQ-3*** *Expose sensitive receptors to substantial pollutant concentrations?*

***Threshold AQ-4*** *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

#### **Methodology**

Air quality impacts were assessed in accordance with methodologies recommended by CARB and the SCAQMD. The latest version of CalEEMod (v2020.4.0), which was released by the SCAQMD in conjunction with CAPCOA and other California air quality districts in May 2021, was used to determine construction and operational air quality emissions of the proposed Project. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Orange County. Construction of the proposed Project is anticipated to start in the first quarter of 2023 and would be completed and operational by 2024. Operational air pollutant emissions were based on the Project site plans and the estimated traffic trip generation rates from

the *Revised Traffic Assessment: The Cove at El Niguel Project, Laguna Niguel, Orange County, California* (Traffic Impact Analysis) (Linscott Law & Greenspan 2021) (Appendix L).

The SCAQMD has established daily emissions thresholds for construction and operation for the evaluation of proposed projects in the 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 by the EPA 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. The following SCAQMD emissions thresholds presented in Table 4.2-3 were utilized to evaluate the proposed Project's air quality impacts.

**Table 4.2-3. Maximum Daily Regional Emissions Thresholds**

<b>Air Pollutant</b>	<b>Construction Phase (lbs/day)</b>	<b>Operational Phase (lbs/day)</b>
VOCs	75	55
CO	550	550
NO <sub>x</sub>	100	55
SO <sub>x</sub>	150	150
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55

The SCAQMD *CEQA Air Quality Handbook* is utilized to identify potentially significant impacts on air quality. For the purposes of this analysis, an impact is considered significant if a project:

1. Generates total emissions (direct and indirect) in excess of the thresholds given in Table 4.2-3 above.
2. Generates a violation of any ambient air quality standard when added to the local background.
3. Does not conform with the applicable attainment or maintenance plan(s).
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million, and/or a health index (non-cancerous) greater than or equal to one.

Projects in the Basin with temporary construction emissions or operational emissions that exceed any of these emission thresholds are considered to be significant under SCAQMD guidelines. These thresholds, which apply throughout the Basin and were developed by the SCAQMD, 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 Project Design Features and Standard Conditions of Approval

- SCA AQ-1** The Project would adhere to applicable SCAQMD rules during construction including: Rule 402 prohibiting the discharge of air contaminants or other materials which cause a nuisance; Rule 403 requiring best available control measures be applied to earth moving and grading activities to reduce the amount of particulate matter emitted into the air as a result of human-made fugitive dust sources; and Rule 1113 requiring compliance with current standards to limit the content of VOC in architectural coatings.
- SCA AQ-2** The Project would adhere to existing, applicable, CALGreen building code standards as they relate to reducing Project operational energy use, indirectly reducing impacts to air quality.

## 4.2.6 Environmental Impact Evaluation

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. In either instance, no mitigation would be required.

---

### ***Threshold AQ-1*** *Conflict with or obstruct implementation of the applicable air quality plan?*

---

**Less than Significant Impact.** SCAQMD is required, pursuant to the FCAA and CCAA, to reduce emissions of criteria pollutants for which the Basin is in nonattainment. The 2016 AQMP outlines comprehensive control strategies to meet PM<sub>2.5</sub> and O<sub>3</sub> standards and maintain lead, CO, NO<sub>2</sub>, and PM<sub>10</sub> standards. These strategies are based, in part, on regional population, housing, and employment projections prepared by the region's cities and counties and incorporated by the Southern California Association of Governments (SCAG). As such, projects that propose development that is consistent with the growth anticipated in the relevant land use plans that were used in the formulation of the AQMP are therefore considered to be consistent with the AQMP. The governing land use document relevant to the project area is the LNGP. Therefore, projects that propose development consistent with the growth anticipated in the current LNGP (and that implement all applicable AQMP control measures) are considered consistent with the AQMP.

Pursuant to the methodology provided in Chapter 12 of the SCAQMD *CEQA Air Quality Handbook* (1993), consistency with the 2016 AQMP is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation, and (2) is consistent with the growth assumptions in the AQMP. Consistency review is based on the following criteria:

1. 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 demonstrated below under 4.2.5 Threshold B. Consequently, the proposed project could not result in an increase in the frequency or severity of any air quality standards violation and will not cause a new air quality standard violation. Therefore, proposed project would be consistent with the AQMP under the first criterion.
2. The *CEQA Air Quality Handbook* (1993) 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. Based on this definition, the proposed project is not a significant project. In addition, the proposed project does not require a General Plan or Specific Plan amendment. Therefore, proposed project would be consistent with the AQMP under the second criterion.

The proposed Project's land use designation and zoning classifications are consistent with the LNGP. As such, the proposed Project is not anticipated to exceed the AQMP assumptions for the Project site and is found to be consistent with the AQMP for the Basin. Based on the consistency analysis presented above, the proposed Project would be consistent with the current SCAQMP and would not result in a new or worsening impact related to implementation of the AQMP. Therefore, impacts related to the conflict with or obstruction of implementation of the applicable air quality plan would be less than significant, and no mitigation is required.

---

***Threshold AQ-2*** *Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard?*

---

### **Less than Significant Impact.**

#### **Construction**

Short-term construction activities produce combustion emissions from various sources (e.g., clear and grub, demolition, site preparation, grading, trenching, utility engines, tenant improvements, and motor vehicles transporting the construction crew). Exhaust emissions from construction activities envisioned on the site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. Air pollutant emission sources during Project construction would include the following:

- Exhaust and particulate emissions generated from construction equipment;

- Fugitive dust from soil disturbance during site preparation, grading, and excavation activities; and
- Volatile compounds that evaporate during site paving and painting of the structures.

Based on the information provided by the Project Applicant, the proposed project would consist of varying construction phases. The construction phases would include scheduled site preparation, grading and wall construction, building construction, paving, landscaping, and architectural coating (painting) activities. The anticipated site preparation and grading would take place over approximately 50 workdays (10 weeks) and vertical construction of the proposed condominium style homes would occur over an additional approximately 220 workdays (10 months).<sup>1</sup>

This construction analysis includes construction equipment default assumptions generated by CalEEMod with minor adjustments for the grading phase to extend the duration due to the large quantity (approximately 7.5 feet) of over excavation, soil remediation/recompacting required, and construction of the MSE and CMU walls. This analysis also includes the estimated 5-day work week, construction equipment hours of use, the quantities of soil and debris disturbed, and on-road vehicle trips (e.g., worker and vendor trips) reflecting anticipated construction efforts at the Project site. The proposed Project requires excavation and fill for typical foundation method and reinforcement of the proposed condominiums. Under the worst-case scenario, the proposed Project would require 19,960 cubic yards (cy) of soil to be cut and excavated, and replacement of 19,830 cy of fill material after completion of the subterranean foundation. This would result in a net overage of 130 cy of soil, which is anticipated to compensate for shrinkage of fill material. No export of soil is planned. The grading activities also refer to areas surrounding the project site that include cutting curbs and gutters, sidewalks, and landscaping during construction.

As specified previously in Section 4.2.4, in Standard Conditions SCA AQ-1 and SCA AQ-2, construction of the proposed Project would comply with SCAQMD standard conditions, including Rule 402 (Nuisance) to control nuisance emissions, Rule 403 (Fugitive Dust) to control fugitive dust, and Rule 1113 (Architectural Coatings) to control VOC emissions from paint. Compliance with SCAQMD standard conditions are regulatory requirements, not mitigation, and were considered in the analysis of construction emissions.

As noted previously, CalEEMod calculations and defaults are assumed for construction activities, select off-road equipment, on-road construction fleet mix, and trip lengths. Table 4.2-4 shows the approximate number of days of each respective construction phase, based on a probable start date in January 2023 and completion of construction twelve months later in January 2024. Table 4.2-5 shows the type of on-site construction equipment used during each phase, quantity, and hours of

---

<sup>1</sup> An aggressive construction schedule was used to provide a conservative air quality analysis, since a longer construction schedule tends to reduce daily emissions.

use per workday. The number of off-site (i.e., on-road) trips during each phase of construction and associated air pollution emissions are also calculated by CalEEMod. The off-site trips and emissions are an inherent calculation embedded into CalEEMod based on trip and emissions data derived from the Sacramento Metropolitan Air Quality District (SMAQMD) construction trip surveys and include the range of off-site trips such as vendors, cement trucks, water trucks, etc.

**Table 4.2-4. Tentative Project Construction Schedule**

<b>Construction Phases</b>	<b>Approximate Number of Workdays (days)</b>
Site Preparation	10
Grading	40
Building Construction	200
Paving	10
Architectural Coating	10

Source: Construction activity based upon information provided by the Project applicant.

**Table 4.2-5. Construction Equipment Utilized by Construction Phase**

<b>Activity</b>	<b>Equipment</b>	<b>Number</b>	<b>Hours per day</b>
Site Preparation	Rubber-Tired Dozers	1	7
	Tractors/Loaders/Backhoes	1	8
	Skid Steer Loaders	1	8
Grading	Graders	1	8
	Rubber-Tired Dozers	1	8
	Tractors/Loaders/Backhoes	2	8
	Roller	1	4
Building Construction	Tractors/Loaders/Backhoes	1	6
	Welders	1	8
	Crane	1	8
	Forklifts	2	7
	Generator Sets	1	8
Architectural Coatings	Air Compressors	1	6
Paving	Pavers	1	8
	Cement Mortar Mixers	1	8
	Paving Equipment	1	8
	Rollers	1	8
	Tractors/Loaders/Backhoes	1	8

Based on the CalEEMod default assumptions as modified to reflect a longer grading phase due to a longer duration of earthwork required, construction equipment/vehicle emissions during construction periods are summarized in Table 4.2-6. As shown in the table, the Project would not exceed SCAQMD established daily emissions thresholds. Therefore, with adherence to SCAQMD's existing rules and regulations regarding construction nuisance (Rule 402), dust (Rule 403), and VOCs (Rule 1113), the proposed Project would not exceed the SCAQMD construction emissions thresholds, and short-term (construction) air quality impacts would be less than significant. No mitigation is required.

**Table 4.2-6. Regional Construction Emissions**

Construction Phase	Pollutant Emissions (lbs/day)					
	VOC(ROG)	NO <sub>x</sub>	CO	SO <sub>x</sub> (SO <sub>2</sub> )	PM <sub>10</sub>	PM <sub>2.5</sub>
Site Preparation	0.84	8.74	6.58	<0.1	2.85	1.67
Grading	1.30	9.28	8.22	<0.1	2.19	1.34
Building Construction	1.25	10.94	11.32	<0.1	0.69	0.52
Architectural Coating	54.69	1.21	1.87	<0.1	0.1	<0.1
Paving	0.77	7.01	10.15	<0.1	0.49	0.35
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds?	No	No	No	No	No	No

<sup>1</sup> Value shown reflects construction phase that generates the maximum daily emission by pollutant.

## Operation

Long-term air pollutant emission impacts are those associated with changes to the Project site related to stationary sources and mobile sources. The proposed Project would result in a net increase in both stationary and mobile-source emissions. The stationary-source emissions would come from area and energy sources.

Operational emissions associated with the proposed Project (including energy use for appliances, landscaping equipment, use of consumer products, solid waste generation, and motor vehicles) were calculated using CalEEMod defaults. In calculating mobile-source emissions, the vehicle fleet mix and trip length values were based on the defaults provided in CalEEMod. The Traffic Assessment (LLG, June 2021, provided in Appendix L) determined that the proposed Project would generate 161 average daily trips. Table 4.2-7 presents the estimated source operational emissions of the proposed Project.

**Table 4.2-7. Regional Operational Emissions**

Source	Pollutant Emissions (lbs/day)					
	VOC(ROG)	NO <sub>x</sub>	CO	SO <sub>x</sub> (SO <sub>2</sub> )	PM <sub>10</sub>	PM <sub>2.5</sub>
Project Area Sources	1.93	<0.1	1.81	<0.1	<0.1	<0.1
Project Energy Sources	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Project Mobile Sources	0.49	0.56	5.07	<0.1	1.29	0.35
<b>Total Project Emissions</b>	<b>2.44</b>	<b>0.68</b>	<b>6.92</b>	<b>&lt;0.1</b>	<b>1.31</b>	<b>0.37</b>
SCAQMD Thresholds	55.0	55.0	550.0	150.0	150.0	55.0
<b>Exceeds?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Compiled by Enplanners 2021.

Table 4.2-7 shows the net increased emission results of the proposed Project would not exceed the corresponding SCAQMD daily emission thresholds for any criteria pollutants. The proposed Project would have a less than significant impact on air quality during Project construction and operations, and no mitigation is required.

---

**Threshold AQ-3** *Expose sensitive receptors to substantial pollutant concentrations?*

---

**Less than Significant Impact.**

**Construction**

The SCAQMD recommends addressing impacts to sensitive receptors using localized significance thresholds (LSTs) they developed for construction and operational impact screening. Screening-level analysis of LSTs is recommended for construction activities at project sites that are approximately 5 acres or less. The Project site has a construction surface area of 2.0 acres located within Lot 1, which includes the area needed to construct and backfill the MSE wall at the toe of slope on the west side of Lot 1. Therefore, screening-level analysis of LSTs for 2 acres was used for construction and operational activities in determining the applicability of SCAQMD's LST look-up tables.

Table 4.2-8 shows that the construction emission rates would not exceed the LSTs for any of the sensitive receptors near the Project site. Therefore, impacts from localized construction-related emissions would be less than significant, and no mitigation is required.

**Table 4.2-8. Construction Localized Impact Analysis**

Emissions Source	Pollutant Emissions (lbs/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
On-Site Emissions	13.17	11.33	5.75	3.27
SRA 21 LST Thresholds -2 Acres	131	993	6	4
Significant Emissions?	No	No	No	No

Source: Compiled by Enplanners 2021.

Note: Source Receptor Area 21– Capistrano Valley, 2-acres, receptors at 25-meter distance.



CO = carbon monoxide  
 lbs/day = pounds per day  
 LST = localized significance thresholds  
 NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size  
 PM<sub>10</sub> = particulate matter less than 10 microns in size

## Operation

Table 4.2-9 shows the calculated emissions for the proposed Project compared with the appropriate LSTs.

**Table 4.2-9. Long-Term Operational Localized Impact Analysis**

Emissions Source	Pollutant Emissions (lbs/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Total On-Site Emissions	0.64	6.99	1.31	0.36
SRA 21 LST Thresholds -2 Acres	131	993	2	1
Significant Emissions?	No	No	No	No

Source: Compiled by Enplanners 2021.

Note: Source Receptor Area 21– Capistrano Valley, 2-acres, receptors at 25-meter distance.

CO = carbon monoxide  
 lbs/day = pounds per day  
 LST = localized significance thresholds  
 NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size  
 PM<sub>10</sub> = particulate matter less than 10 microns in size

Table 4.2-9 shows that the operational emission rates would not exceed the LSTs for the nearest sensitive receptors at 25 meters. Therefore, impacts from localized operation-related emissions would be less than significant, and no mitigation is required.

---

**Threshold AQ-4** *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

---

**Less than Significant Impact.** The proposed residential Project is not anticipated to result in objectionable odors. Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills, or heavy manufacturing uses. The Project does not propose any such uses or activities that would result in potentially significant odor impacts. Therefore, impacts from other emissions such as odors would be less than significant, and no mitigation is required.

### 4.2.7 Cumulative Impacts

**Less than Significant Impact.** The cumulative impact area for air quality related to the proposed Project is the South Coast Air Basin. Air pollution is inherently a cumulative impact measured across an air basin. The analysis provided above includes an analysis of the proposed Project's contribution to cumulative air impacts. The incremental effect of projects that individually do not

exceed the project-specific thresholds are generally not considered to be cumulatively considerable per SCAQMD guidelines. 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 on a project-by-project basis, including the proposed Project, would substantially reduce potential impacts associated with the related cumulative projects and 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.

#### **4.2.8 Summary of Mitigation Measures**

No air quality impacts have been found to be potentially significant, no mitigation measures are required.

The analysis above indicates that the Project will not exceed significance criteria for air quality impacts. Therefore, all air quality impacts are less than significant, and no mitigation measures are required.

#### **4.2.9 Significant Environmental Impacts**

The analysis above indicates the Project will not exceed significance criteria for air quality impacts on a project-specific and cumulative basis. Therefore, air quality impacts are **less than significant**, and no mitigation measures are required.

#### **4.2.10 References**

- 14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.
- California Air Resources Board (ARB). 2009. ARB Fact Sheet: Air Pollution and Health. <http://www.arb.ca.gov/research/health/fs/fs1/fs1.htm>, (Accessed June 20, 2021).
- City of Laguna Niguel. February 2022. City of Laguna Niguel CEQA Manual.
- City of Laguna Niguel. 1992. General Plan for the City of Laguna Niguel. Available: <http://cityoflagunaniguel.org/DocumentCenter/Home/View/1886>. (Accessed June 20, 2021).
- City of Laguna Niguel. 2021. City of Laguna Niguel 2021–2029 Housing Element. Available: <https://www.cityoflagunaniguel.org/1352/Housing-Element-Update>. Last revised: October 2021. (Accessed February 22, 2022).
- City of Laguna Niguel, Laguna Niguel Municipal Code Title 9, Planning and Zoning. [https://library.municode.com/ca/laguna\\_niguel/codes/code\\_of\\_ordinances?nodeId=TIT9PLZO](https://library.municode.com/ca/laguna_niguel/codes/code_of_ordinances?nodeId=TIT9PLZO) (Accessed June 20, 2021).
- Enplanners. October 2021. CalEEMod Air Pollution Emissions Calculations.

Linscott, Law & Greenspan Engineers. June 9, 2021. Revised Traffic Assessment – The Cove at El Niguel.

South Coast Air Quality Management District (SCAQMD). 2017. CEQA Air Quality Handbook website: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>, (Accessed June 20, 2021).

South Coast Air Quality Management District (SCAQMD). 2008. Localized Significance Thresholds, Mass Look Up Tables and SRA City Tables: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds#appc> (Accessed October 5, 2021).

United States Environmental Protection Agency (EPA). Air Quality Data. <https://www.epa.gov/outdoor-air-quality-data>, (Accessed June 20, 2021).

*Remainder of this page left intentionally blank.*

*This page left intentionally blank.*