5.2 AIR QUALITY

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed project to impact air quality in a local and regional context. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). Air quality modeling is based on trip generation provided by DKS Associates (see Appendices L1 and L2). Modeling for criteria air pollutant emissions for the construction and operational phases is included in Appendix E of this Draft EIR.

5.2.1 Environmental Setting

5.2.1.1 REGULATORY FRAMEWORK

Ambient air quality standards (AAQS) have been adopted and are periodically updated at state and federal levels for criteria air pollutants. In addition, both the state and federal governments regulate the release of toxic air contaminants (TACs). The project site is within the South Coast Air Basin (SoCAB). Land use is subject to the rules and regulations imposed by SCAQMD, the California AAQS adopted by the California Air Resources Board (CARB), and National AAQS adopted by the United States Environmental Protection Agency (EPA). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the project are summarized below.

Federal and State

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollutants. The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 5.2-1, *Ambient Air Quality Standards for Criteria Pollutants*. These pollutants are ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter

(PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). 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.

Table 5.2-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm[5]	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm[4]	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm[2]	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm[1,4]	
	24 hours	0.04 ppm	0.014 ppm[2]	
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust- and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Particulate Matter - Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	12 µg/m$^{3, 3}$	Dust- and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarterly	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)	24 hours	25 µg/m^3	*	Industrial processes.

Table 5.2-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Visibility-Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles[1]	*	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	*	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	*	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2015.
Notes: ppm: parts per million; µg/m^3: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
[1] When relative humidity is less than 70 percent.
[2] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1971 SO_2 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.
[3] On December 14, 2012, EPA lowered the federal primary $PM_{2.5}$ annual standard from 15.0 µg/m^3 to 12.0 µg/m^3. EPA made no changes to the primary 24-hour $PM_{2.5}$ standard or to the secondary $PM_{2.5}$ standards.
[4] NO_2 and SO_2 standards are converted from ppb (parts per billion) to ppm for consistency purposes.
[5] On October 1, 2015, the EPA strengthened the National Air Quality Standards for ground-level ozone to 70 ppb, based on extensive scientific evidence about ozone's effects on public health and welfare.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

Tanner Air Toxics Act and Air Toxics "Hot Spot" Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and to reduce exposure to them. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health" (17 CCR § 93000). A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 U.S. Code § 7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate "toxics best available control technology" to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- **CARB Rule 2485** (13 CCR Chapter 10, § 2485), Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- **CARB Rule 2480** (13 CCR Chapter 10, § 2480), Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- **CARB Rule 2477** (13 CCR § 2477 and Article 8), Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations in effect at the time of activity, including the following:

- **Rule 401 – Visible Emissions.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than three minutes in any one hour that is as dark or darker in shade than that designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

- **Rule 402 – Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

- **Rule 403 – Fugitive Dust.** This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust, and requires best available control measures to be applied to earth moving and grading activities.

- **Rule 1113 – Architectural Coatings.** This rule serves to limit the VOC content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the SCAQMD must comply with the current VOC standards set in this rule.

Local

City of Newport Beach General Plan

The following Newport Beach General Plan Natural Resources Element policies address the City's goals of protecting air quality conditions in Newport Beach and are applicable to the proposed project.

- **NR 6.1 Walkable Neighborhoods.** Provide for walkable neighborhoods to reduce vehicle trips by siting amenities such as services, parks, and schools in close proximity to residential areas.

- **NR 7.2. Source Emission Reduction Best Management Practices.** Require the use of Best Management Practices (BMP) to minimize pollution and to reduce source emissions.

- **NR 8.1. Management of Construction Activities to Reduce Air Pollution.** Require developers to use and operate construction equipment, use building materials and paints, and control dust created by construction activities to minimize air pollutants.

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that AAQS have been established for them. VOC and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

A description of each of the primary and secondary criteria air pollutants and its known health effects is presented below.

- **Carbon Monoxide** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005; USEPA 2016). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2014).

- **Volatile Organic Compounds** are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (SCAQMD 2005). There are no AAQS for VOCs. However, because they contribute to the formation of O_3, SCAQMD has established a significance threshold (see Section 5.2.2.1, South Coast Air Quality Management District Thresholds).

- **Nitrogen Oxides** are a by-product of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_X produced by combustion is NO, but NO reacts quickly with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics, children, and the elderly. Current scientific evidence links short-term NO_2 exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people

and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (SCAQMD 2005; USEPA 2016). The SoCAB is designated an attainment area for NO_2 under the National and California AAQS (CARB 2014).

- **Sulfur Dioxide** a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing.) At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (SCAQMD 2005; USEPA 2016). The SoCAB is designated attainment under the California and National AAQS (CARB 2014).

- **Suspended Particulate Matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤10 millionths of a meter or 0.0004 inch). Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e., ≤2.5 millionths of a meter or 0.0001 inch). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The EPA's scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (SCAQMD 2005). There has been emerging evidence that ultrafine particulates (UFPs), which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), have human health implications, because UFPs' toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (SCAQMD 2013). However, the EPA or CARB has yet to adopt AAQS to regulate these particulates. Diesel particulate matter (DPM) is classified by CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment,[1] environmental damage,[2] and aesthetic

[1] $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

damage[3] (SCAQMD 2005; USEPA 2016). The SoCAB is a nonattainment area for $PM_{2.5}$ under California and National AAQS and a nonattainment area for PM_{10} under the California AAQS (CARB 2014).[4]

- **Ozone** is commonly referred to as "smog" and is a gas that is formed when VOCs and NO_X, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (SCAQMD 2005; USEPA 2016). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2014).

- **Lead** is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (SCAMQD 2005; USEPA 2016). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[5] As a result of these violations,

2 Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

3 Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

4 CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM_{10} standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM_{10} nonattainment area to attainment of the PM_{10} National AAQS, effective on July 26, 2013.

5 Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2012).

the Los Angeles County portion of the SoCAB is designated as nonattainment under the National AAQS for lead (SCAQMD 2012; CARB 2014). Because emissions of lead are found only in projects that are permitted by SCAQMD, lead is not a pollutant of concern for the project.

Toxic Air Contaminants

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified diesel particulate matter as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

Community Risk

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3 butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Air Quality Management Planning

SCAQMD is the agency responsible for improving air quality in the SoCAB and assuring that the National and California AAQS are attained and maintained. SCAQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2012 AQMP

On December 7, 2012, SCAQMD adopted the 2012 AQMP, which employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. It also addresses several

state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. The 2012 AQMP builds upon the approach identified in the 2007 AQMP for attainment of federal PM and ozone standards and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the time frame allowed under the CAA. The 2012 AQMP demonstrates attainment of federal 24-hour $PM_{2.5}$ standard by 2014 and the federal 8-hour ozone standard by 2023. Preliminary ambient air quality data suggests that meeting the 2016 federal 24-hour $PM_{2.5}$ standards by the end of 2016 is not likely, largely due to the usually extreme drought conditions in the SoCAB (SCAQMD 2015c). It includes an update to the revised EPA 8-hour ozone control plan with new commitments for short-term NO_X and VOC reductions. The plan also identifies emerging issues of ultrafine particulate matter ($PM_{1.0}$) and near-roadway exposure, and an analysis of energy supply and demand.

2016 Draft AQMP

The SCAQMD is in the process of updating the AQMP. The 2016 AQMP will address strategies and measures to attain the 2008 federal 8-hour ozone standard by 2032 and the 2012 federal annual $PM_{2.5}$ standard by 2021. The 2016 AQMP will also take an initial look at the 2015 federal 8-hour ozone standard. It will also update previous attainment plans for ozone and $PM_{2.5}$ that have not yet been met (SCAQMD 2015d).

In 2008, the EPA designated the Los Angeles County portion of the SoCAB as a nonattainment area under the federal lead classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in the City of Vernon and the City of Industry that exceeded the new standard in the 2007-to-2009 period. The remainder of the SoCAB, outside the Los Angeles County nonattainment area, remains in attainment of the new 2008 lead standard. On May 24, 2012, CARB approved the State Implementation Plan (SIP) revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to the EPA for approval.

5.2.1.2 EXISTING CONDITIONS

South Coast Air Basin

The project site is in the SoCAB, which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (SCAQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site is the Newport Beach Harbor Monitoring Station (ID 046175). The average low is reported at 46.9°F in January, and the average high is 73.4°F in August (WRCC 2016).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages 11 inches per year in the project area (WRCC 2016).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 2005).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly

degraded air quality in summer and the generally good air quality in the winter in the project area (SCAQMD 2005).

SoCAB Nonattainment Designations

The AQMP provides the framework for air quality basins to achieve attainment of the California and National AAQS through the SIP. Areas are classified as attainment or nonattainment areas for particular pollutants depending on whether they meet the ambient air quality standards. Severity classifications for ozone nonattainment are marginal, moderate, serious, severe, and extreme. The attainment status for the SoCAB is shown in Table 5.2-2, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*. The SoCAB is designated in attainment of the California AAQS for sulfates and designated a nonattainment area for lead (Los Angeles County only) under the National AAQS.

Table 5.2-2 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM_{10}	Serious Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only)[1]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2014.
[1] In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas within the SoCAB are unclassified.

SoCAB Multiple Air Toxics Exposure Study IV

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In 2008, SCAQMD conducted its third update to the MATES study (MATES III) based on the Office of Environmental Health Hazards Assessment (OEHHA) 2003 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (2003 HRA Guidance Manual). The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, which accounted for 84 percent of the cancer risk (SCAQMD 2008b).

SCAQMD recently released the fourth update (MATES IV), which was also based on OEHHA's 2003 HRA Guidance Manual. The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 -MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources, and 10 percent is attributed to TACs from stationary

sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, which accounted for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basinwide population-weighted risk decreased by approximately 57 percent since MATES III (SCAQMD 2015a).

OEHHA updated the guidelines for estimating cancer risks on March 6, 2015. The new method utilizes higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on breathing rates and length of residential exposures. When combined together, SCAQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher than the risk identified in MATES IV using the 2015 OEHHA guidance methodology (e.g., 2.7 times higher than 418 in one million overall excess cancer risk) (SCAQMD 2015a).

Existing Ambient Air Quality

Existing ambient air quality, historical trends, and projections in the vicinity of the project site are best documented by measurements made by SCAQMD. The project site is located within Source Receptor Area (SRA) 18 – North Orange County Coastal. The air quality monitoring station closest to the project site is the Costa Mesa – Mesa Verde Drive Monitoring Station. This station monitors O_3, CO, NO_2, and SO_2. Data for PM_{10} and $PM_{2.5}$ is supplemented by the Mission Viejo – 26081 Via Pera Monitoring Station, the closest monitoring station that monitors PM_{10} and $PM_{2.5}$. The most current five years of data monitored at these monitoring stations are included in Table 5.2-3, *Ambient Air Quality Monitoring Summary*. The data show recurring violations of both the state and federal O_3 standards. The CO, NO_2, SO_2, state PM_{10}, and federal $PM_{2.5}$ standards have not been violated in the last five years in the project vicinity.

Table 5.2-3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2010	2011	2012	2013	2014
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	1	0	0	1	1
State 8-hour ≥ 0.07 ppm (days exceed threshold)	2	2	1	2	6
Federal 8-Hour > 0.075 ppm (days exceed threshold)	1	1	1	1	4
Max. 1-Hour Conc. (ppm)	0.097	0.093	0.090	0.095	0.096
Max. 8-Hour Conc. (ppm)	0.076	0.077	0.076	0.084	0.080
Carbon Monoxide (CO)[1]					
State 8-Hour > 9.0 ppm (days exceed threshold)	0	0	0	*	*
Federal 8-Hour ≥ 9.0 ppm (days exceed threshold)	0	0	0	*	*
Max. 8-Hour Conc. (ppm)	2.09	2.22	1.71	*	*
Nitrogen Dioxide (NO_2)[1]					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	70	60	74	75	60
Sulfur Dioxide (SO_2)[1]					
State 24-Hour ≥ 0.04 ppm (days exceed threshold)	0	0	0	0	*
Federal 24-Hour ≥ 0.14 ppm (days exceed threshold)	0	0	0	0	*
Max 24-Hour Conc. (ppm)	0.002	0.002	0.001	0.001	*
Coarse Particulates (PM_{10})[2]					
State 24-Hour > 50 µg/m³ (days exceed threshold)	0	0	0	0	0
Federal 24-Hour > 150 µg/m³ (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (µg/m³)	34.0	47.0	36.0	50.0	40.0
Fine Particulates ($PM_{2.5}$)[2]					
Federal 24-Hour > 35 µg/m³ (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (µg/m³)	19.9	33.4	27.6	28.0	25.5

Source: CARB 2016.
ppm: parts per million; parts per billion, µg/m³: micrograms per cubic meter
Notes: * Data not available.
[1] Data obtained from the Costa Mesa – Mesa Verde Drive Monitoring Station
[2] Data obtained from the Mission Viejo – 26081 Via Pera Monitoring Station

Existing Emissions

The approximately two-acre project site consists of the 23,632-square-foot OCMA building. Criteria air pollutants generated by the OCMA building were modeled with CalEEMod 2013.2.2, based on trip generation provided by DKS Associates (see Appendices L1 and L2). Criteria air pollutant emissions are shown in Table 5.2-4, *Existing Maximum Daily Operational Phase Criteria Air Pollutant Emissions*.

Table 5.2-4 Existing Maximum Daily Operational Phase Criteria Air Pollutant Emissions

Phase	Operation-Related Regional Emissions (pounds/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Existing						
Area	1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Transportation	<1	1	3	<1	1	<1
Total	1	1	3	<1	1	<1

Source: CalEEMod Version 2013.2.2. Based on highest winter or summer emissions using 2016 emission rates. Totals may not equal 100 percent due to rounding.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, because the majority of the workers tend to stay indoors most of the time. In addition, the workforce is generally the healthiest segment of the population.

The nearby sensitive receptors to the project site include the Villas at Fashion Island currently being constructed approximately 80 feet directly adjacent to the north and the Colony apartments approximately 260 feet to the southwest across San Clemente Drive.

5.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

AQ-3 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

AQ-4 Expose sensitive receptors to substantial pollutant concentrations.

AQ-5 Create objectionable odors affecting a substantial number of people.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would either be less than significant or have no impact:

- Threshold AQ-5

This threshold will not be addressed in the following analysis. Please refer to Appendix A.

5.2.2.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

The analysis of the project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's CEQA Air Quality Handbook and the significance thresholds on SCAQMD's website.[6] CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality (see Appendix G to the CEQA Guidelines, Environmental Checklist Form). SCAQMD has established regional thresholds of significance. In addition to the regional thresholds, projects are subject to the AAQS.

Regional Significance Thresholds

SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SoCAB. SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's specific and cumulative impact on air quality in the SoCAB. Table 5.2-5, *SCAQMD Significance Thresholds*, lists thresholds that are applicable for all projects uniformly regardless of size or scope.

Table 5.2-5 SCAQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROG)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day

Source: SCAQMD 2015g.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health impacts.

[6] SCAQMD's air quality significance thresholds can be found at: http://www.aqmd.gov/ceqa/hdbk.html.

Localized Significance Thresholds

SCAQMD identifies localized significance thresholds (LSTs), shown in Table 5.2-6, *SCAQMD Localized Significance Thresholds*. Emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at a project site (offsite mobile-source emissions are not included in the LST analysis) could expose sensitive receptors to substantial concentrations of criteria air pollutants. A project that generates emissions that trigger a violation of the AAQS when added to the local background concentrations would generate a significant impact.

Table 5.2-6 SCAQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)[1]	20 ppm
8-Hour CO Standard (CAAQS/NAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual Average NO_2 Standard (CAAQS)[1]	0.03 ppm
24-Hour PM_{10} Standard – Construction (SCAQMD)[2]	10.4 µg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (SCAQMD)[2]	10.4 µg/m^3
24-Hour PM_{10} Standard – Operation (SCAQMD)[2]	2.5 µg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (SCAQMD)[2]	2.5 µg/m^3
Annual Average PM_{10} Standard (SCAQMD)[2]	1.0 µg/m^3

Source: SCAQMD 2015b.
ppm – parts per million; µg/m^3 – micrograms per cubic meter
[1] Based on the more restrictive CAAQS for CO and NO_2.
[2] Threshold is based on SCAQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is not relevant.

To assist lead agencies, SCAQMD developed screening-level LSTs to back-calculate the mass amount (pounds per day) of emissions generated onsite that would trigger the hourly levels shown in Table 5.2-6 for projects under five acres. LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. Screening-level LST analyses are the localized significance thresholds for all projects of five acres and less; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.2-6.

The construction LSTs in SRA 18 are shown in Table 5.2-7, *SCAQMD Construction Localized Significance Screening Thresholds*. For construction activities, LSTs are based on the acreage disturbed per day based on equipment use. This is because different types of construction equipment result in different amount of soil disturbance based on the number of hours they are in operation. Each construction phase would necessitate different types of construction activities, resulting in a different equipment mix and hours of operation, which are used to determine the maximum number of acres disturbed on the peak day. The LSTs for a particular construction activity at the project site are determined from the distance to the nearest sensitive receptor and the maximum acres disturbed.

Table 5.2-7 SCAQMD Construction Localized Significance Screening Thresholds

Acreage Disturbed	Threshold (lbs/day)[1] Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
≤1.00 Acres Disturbed Per Day	92	647	4.00	3.00

Source: SCAQMD 2008a. Based on receptors in SRA 18.
[1] LSTs are based on sensitive receptors within 82 feet (25 meters). According to the SCAQMD Final Localized Significance Threshold Methodology, projects with boundaries located closer than 82 feet (25 meters) to the nearest receptor should use the LSTs for receptors located at 82 feet (25 meters) (SCAQMD 2008a).

The operational LSTs in SRA 18 are shown in Table 5.2-8, *SCAQMD Screening-Level Operational Localized Significance Thresholds*.

Table 5.2-8 SCAQMD Screening-Level Operational Localized Significance Thresholds

Air Pollutant	Threshold (lbs/day) Operational[1]
Nitrogen Oxides (NO_X)	131
Carbon Monoxide (CO)	962
Coarse Particulates (PM_{10})	2.00
Fine Particulates ($PM_{2.5}$)	2.00

Source: SCAQMD 2008a. Based on receptors in SRA 18.
[1] LSTs are based on sensitive receptors within 82 feet (25 meters) of a 2-acre site. According to the SCAQMD Final Localized Significance Threshold Methodology, projects with boundaries located closer than 82 feet (25 meters) to the nearest receptor should use the LSTs for receptors located at 82 feet (25 meters) (SCAQMD 2008a).

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels, as well as implementation of control technology on industrial facilities, CO concentrations in the SoCAB and the state have steadily declined.

Health Risk Analysis

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401; placed on CARB's air toxics list pursuant to AB 1807, the Air Contaminant Identification and Control Act (1983); or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by SCAQMD. Table 5.2-9, *SCAQMD Toxic Air Contaminants Incremental Risk Thresholds*, lists SCAQMD's TAC incremental risk thresholds for operation of a project. Residential, commercial, and office uses do not use substantial quantities of TACs, and these thresholds are typically applied for new industrial projects.

Table 5.2-9 SCAQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Individual Cancer Risk	≥ 10 in 1 million
Cancer Burden (in areas ≥ 1 in 1 million)	> 0.5 excess cancer cases
Hazard Index (project increment)	≥ 1.0

Source: SCAQMD 2015b.

5.2.3 Environmental Impacts

5.2.3.1 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with implementation of the proposed project. SCAQMD has published guidelines that are intended to provide local governments with guidance for analyzing and mitigating air quality impacts and that were used in this analysis (SCAQMD 1993; SCAMQD 2008a; SCAQMD 2015b; SCAQMD 2015g). The analysis also makes use of California Emissions Estimator Model (CalEEMod), version 2013.2.2, for determination of daily construction and operational emissions. Construction emissions are based on the construction information provided by the Applicant. Where specific information was not available, construction assumptions were based on CalEEMod defaults in addition to past similar projects (see Appendix E). Please refer to the Chapter 3, Project Description, for a discussion of the construction equipment which will be utilized during project demolition and construction activities. Operational emissions impacts are based, in part, on the trip generation and vehicle miles traveled (VMT) provided by the traffic impact analyses (see Appendices L1 and L2).

5.2.3.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.2-1: The proposed project is consistent with the South Coast Air Quality Management District's Air Quality Management Plan. [Threshold AQ-1]

Impact Analysis: SCAQMD is directly responsible for reducing emissions from area, stationary, and mobile sources in the SoCAB to achieve National and California AAQS. SCAQMD has responded to this requirement by preparing an AQMP. On December 7, 2012, the SCAQMD Governing Board adopted the 2012 AQMP, which is a regional and multi-agency effort (SCAQMD, CARB, SCAG, and USEPA). A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

The two principal criteria for conformance to an AQMP are:

1. Whether the project would exceed the assumptions in the AQMP

2. 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 air quality standards

SCAG is SCAQMD's partner in the preparation of the AQMP, providing the latest economic and demographic forecasts and developing transportation measures. Regional population, housing, and employment projections developed by SCAG are based, in part, on the city's general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. These demographic trends are incorporated into the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), compiled by SCAG to determine priority transportation projects and VMT within the SCAG region. The AQMP strategy is based on projections from local general plans. Projects that are consistent with the local general plan are considered consistent with the air quality-related regional plan. Additionally, only large projects have the potential to substantially effect the demographic forecasts in the AQMP.

SCAG determines whether a project is regionally significant per CEQA Guidelines Section 15206(b), which states that the lead agency shall determine that a proposed project is of statewide, regional, or area-wide significance if the project is a residential development of more than 500 dwelling units. Therefore, the proposed project, which includes 100 dwelling units, is not considered regionally significant by SCAG and the project would not have the potential to substantially affect SCAG's demographic projections. As discussed in Chapter 5.10, the population, housing, and employment growths introduced by the proposed project would be within the projection forecasts by the City's General Plan and SCAG's RTP/SCS. Therefore, with respect to the first criterion, the proposed project would not increase or modify SCAG's population, housing, or employment projections beyond what was already anticipated for the area.

With respect to the second criterion, the analyses in responses to Impact 5.2-2 and 5.2-3 below demonstrate that the proposed project would not generate short-term or long-term emissions of criteria pollutants that would exceed SCAQMD's thresholds, which were established to determine whether a project has the potential to cumulatively contribute to the SoCAB's nonattainment designations. Consequently, the proposed project would note 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 AAQS.

Lastly, the proposed project is located within 0.4 mile of three OCTA bus routes (Route 55, 57, and 79) and approximately three-quarters of a mile from the Newport Transportation Center Dock 1, making public transportation accessible to the proposed project. The proposed project has a Walk Score of 64, which is 40 percent better than the average Walk Score of 46 for the City of Newport Beach (Walk Score 2016). Pedestrians leaving the project site are within a quarter-mile walking distance from banks, cleaners, community center, department stores, fire stations, fitness center, supermarkets, restaurants, offices, and other retails and services. Also, the proposed project is connected directly to the City of Newport Beach's extensive network of bike and walking trails, lanes, and sidewalks via the sidewalk at San Clemente Drive. The proposed condominium tower would also provide a dedicated storage space for 200 bicycles for the residents. The

project's proximity to services, active transportation features, and alternative transportation options would reduce per capita VMT and associated criteria air pollutant emissions from mobile sources.

As identified above, the proposed project would not affect the regional emissions inventory or conflict with the AQMP. Impacts are less than significant and no mitigation measures are required.

Impact 5.2-2: Construction activities associated with implementation of the proposed project would generate short-term emissions that exceed the South Coast Air Quality Management District's regional construction threshold for VOC. [Thresholds AQ-2 and AQ-3]

Impact Analysis: A project would normally have a significant effect on the environment if it violates any air quality standard or contributes substantially to an existing or projected air quality violation. Construction activities produce combustion emissions from various sources, such as onsite heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Site preparation activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from grading and excavation and from demolition. Air pollutant emissions from construction activities onsite would vary daily as construction activity levels change.

Construction activities for the proposed project would temporarily increase PM_{10}, $PM_{2.5}$, VOC, NO_X, SO_X, and CO regional emissions within the SoCAB. Activities would include demolition of the existing Orange County Museum of Art (OCMA) building, site preparation, grading, utility trenching, construction of the 25-story condominium tower, and offsite sewer improvement. Estimates of maximum daily construction emissions are provided in Table 5.2-10, *Maximum Daily Regional Construction Emissions*. As shown in the table, maximum daily construction emissions would not exceed SCAQMD's regional construction significance thresholds for NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$. However, the maximum daily emissions of VOC generated from the combined building construction, asphalt paving, and architectural coating activities would exceed SCAQMD's regional construction significance threshold for VOC. Consequently, impacts to regional air quality from project-related construction activities would be significant unless mitigated.

Table 5.2-10 Maximum Daily Regional Construction Emissions

Source	Criteria Air Pollutants (pounds per day)[1, 2]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 2018						
Building Demolition + Asphalt Demolition	1	11	9	<1	1	1
Building Demolition + Asphalt Demolition + Building Demo Debris Haul + Asphalt Demolition Debris Haul	2	30	26	<1	9	2
Site Preparation	<1	3	3	<1	<1	<1
Site Preparation + Site Preparation Soil Haul	1	6	5	<1	1	<1
Mass Excavation + Utility Trenching	1	8	6	<1	<1	<1
Mass Excavation + Utility Trenching + Mass Excavation Soil Haul	4	56	44	<1	5	2
Utility Trenching + Fine Grading	1	6	6	<1	<1	<1
Utility Trenching + Fine Grading + Fine Grading Soil Haul	2	21	17	<1	2	1
Building Construction	3	21	32	<1	4	2
Year 2019						
Building Construction	3	20	30	<1	4	2
Year 2020						
Building Construction	3	18	29	<1	4	2
Building Construction + Asphalt Paving + Architectural Coating	79	21	36	<1	5	2
Building Construction + Finishing/Landscaping	3	20	31	<1	4	2
Finishing/Landscaping	<1	2	2	<1	<1	<1
Maximum						
Maximum Daily Emissions	79	56	44	<1	9	2
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	Yes	No	No	No	No	No

Source: CalEEMod Version 2013.2.2. Totals may not add up to 100 percent due to rounding.
Bold: Exceeds threshold.
1 Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
2 Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers. Modeling also assumes a VOC of 50 g/L for paints as indicated by the Applicant.

Impact 5.2-3: Long-term criteria air pollutant emissions associated with the proposed project would not exceed the South Coast Air Quality Management District's regional operational significance thresholds. [Thresholds AQ-2 and AQ-3]

Impact Analysis: Buildout of the proposed project would result in criteria air pollutant emissions from area sources (e.g., fuel use for landscaping and lawn maintenance, aerosols, and architectural coatings; energy use (natural gas) associated with the proposed condominium tower; and the project-related vehicle trips generated). The proposed project would generate a total of 418 average daily trips during a weekday, which is a net increase of 310 additional average daily trips compared to existing conditions, as provided by DKS Associates. Criteria air pollutant emissions were modeled using CalEEMod. Table 5.2-11, *Net Increase in*

Maximum Daily Regional Operational Emissions, identifies criteria air pollutant emissions from the proposed project.

Table 5.2-11 Net Increase in Maximum Daily Regional Operational Emissions

Source	Criteria Air Pollutants (lbs/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Existing						
Area	1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile Sources	<1	1	3	<1	1	<1
Total Emissions	1	1	3	<1	1	<1
Proposed Project						
Area	11	<1	8	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile Sources	1	1	11	<1	3	1
Total Emissions	12	1	19	<1	3	1
Net Change						
Area	10	<1	8	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile Sources	1	<1	8	<1	2	1
Total Emissions	10	1	16	<1	3	1
SCAQMD Regional Threshold	55	55	550	150	150	55
Exceeds Regional Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2013.2.2.
Note: Highest winter or summer emissions are reported. Totals may not add up to 100 percent due to rounding. The condominium tower would be constructed to exceed the required 2016 Building and Energy Efficiency Standards and would implement the 2013 California Green Building Standards Code (CALGreen).

As shown in this table, project-related long-term air pollutant emissions would not exceed SCAQMD's regional significance thresholds. Therefore, impacts to the regional air quality from project-related operational phase emissions would be less than significant and would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is nonattainment.

Impact 5.2-4: Construction of the proposed project would expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-4]

Impact Analysis: The proposed project could expose sensitive receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects.

Construction LSTs

Localized significance thresholds (LSTs) are based on the California AAQS, which are the most stringent AAQS that have been established to provide a margin of safety in the protection of public health and

welfare. They are designated to protect sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. Construction LSTs are based on the size of the project site, distance to the nearest sensitive receptor, and Source Receptor Area. The nearby sensitive receptors to the project site are the residential land uses to the north and to the southwest across San Clemente Drive.

Air pollutant emissions generated by construction activities are anticipated to cause increases in air pollutant concentrations during the 28-month construction period. Table 5.2-12, *Localized Construction Emissions,* shows the maximum daily construction emissions (pounds per day) generated during onsite construction activities compared with the SCAQMD's LSTs.

Table 5.2-12 Localized Construction Emissions

Source	Pollutants (pounds per day)[1, 2]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
2018 Building Demolition + Asphalt Demolition	11	8	0.50	0.46
2018 Building Demolition + Asphalt Demolition + Building Demo Debris Haul + Asphalt Demolition Debris Haul	11	8	7.51	1.52
2018 Site Preparation	3	2	0.19	0.17
2018 Site Preparation + Site Preparation Soil Haul	3	2	0.19	0.17
2018 Mass Excavation + Utility Trenching	7	5	0.34	0.32
2018 Mass Excavation + Utility Trenching + Mass Excavation Soil Haul	7	5	0.42	0.33
2018 Utility Trenching + Fine Grading	5	5	0.37	0.34
2018 Utility Trenching + Fine Grading + Fine Grading Soil Haul	5	5	0.39	0.34
2018 Building Construction	18	15	0.87	0.84
2019 Building Construction	16	14	0.78	0.75
2020 Building Construction	15	14	0.69	0.66
2020 Building Construction + Asphalt Paving + Architectural Coating	18	18	0.93	0.88
2020 Building Construction + Finishing/Landscaping	17	16	0.83	0.79
2020 Finishing/Landscaping	2	2	0.13	0.12
SCAQMD ≤1.00-acre LST	92	647	4.00	3.00
Exceeds LST?	No	No	Yes	No

Source: CalEEMod Version 2013.2.2., and SCAQMD, Localized Significance Methodology, 2006, October, Appendix A.
Bold: Exceeds threshold.
In accordance with SCAQMD methodology, only onsite stationary sources and mobile equipment occurring on the proposed project site are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) of the proposed project site.
[1] Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
[2] Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers. Modeling also assumes a VOC of 50 g/L for paints as indicated by the Applicant.

As shown in this table, the maximum daily NO_x, CO, and $PM_{2.5}$ construction emissions generated from onsite construction-related activities would be less than their respective SCAQMD LSTs. However, PM_{10} emissions generated during the overlapping building demolition, asphalt demolition, building demo debris haul, and

asphalt demo debris haul phase would exceed the SCAQMD LSTs. Therefore, project-related construction activities would expose sensitive receptors to substantial pollutant concentrations unless mitigated.

Operation LSTs

Operation of the proposed project would not generate substantial quantities of emission from onsite, stationary sources. Land uses that have the potential to generate substantial stationary sources of emissions that would require a permit from SCAQMD include industrial land uses, such as chemical processing and warehousing operations where substantial truck idling could occur onsite. The proposed project does not fall within these categories of uses. While operation of the proposed project would result in the use of standard onsite mechanical equipment such as heating, ventilation, and air conditioning units in addition to occasional use of landscaping equipment for project site maintenance, air pollutant emissions generated from these activities would be below the SCAQMD LST threshold as shown in Table 5.2-13, *Localized Operation Emissions*. Therefore, localized air quality impacts related to stationary-source emissions would be less than significant.

Table 5.2-13 Localized Operation Emissions

Source	Pollutants (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Area	<1	8	0.18	0.18
Energy	<1	<1	0.02	0.02
Maximum Daily Onsite Operation Emissions	<1	8	0.20	0.20
SCAQMD LST	131	962	2.00	2.00
Exceeds LST?	No	No	No	No

Source: CalEEMod Version 2013.2.2., and SCAQMD, Localized Significance Methodology, 2006, October, Appendix A.
In accordance with SCAQMD methodology, only onsite stationary sources and mobile equipment occurring on the proposed project site are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) of the proposed project site.

Carbon Monoxide Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds.

The SoCAB has been designated as attainment under both the national and California AAQS for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact (BAAQMD 2011). The proposed project could generate up to 418 average daily trips, with 34 trips during the AM peak hour and 38 trips during the PM peak hour. These trip generations are significantly less than the volumes cited above. Furthermore, the SoCAB has since been designated as attainment under both the National and California

AAQS for CO. The project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the project site. Localized air quality impacts related to mobile-source emissions would be less than significant, and no mitigation measures are required.

Health Risk Assessment

Construction activities would result in short-term emissions of diesel PM, which is a TAC. The exhaust of off-road heavy-duty diesel equipment would emit diesel PM during site preparation, grading, and other construction activities.

SCAQMD currently does not require health risk assessments to be conducted for short-term emissions from construction equipment. Emissions from construction equipment primarily consist of diesel particulate matter (DPM). The OEHHA has recently adopted new guidance for the preparation of health risk assessments issued in March 2015. OEHHA has developed a cancer risk factor and non-cancer chronic reference exposure level for DPM, but these factors are based on continuous exposure over a 30-year time frame. No short-term acute exposure levels have been developed for DPM. Nevertheless, the proposed project would be developed in approximately 28 months, far less than the 30-year exposure period for DPM and which would limit the exposure to onsite and offsite receptors. In addition, construction activities would not exceed LST significance thresholds with mitigation. For the reasons stated above, it is anticipated that construction emissions would not pose a threat to onsite and offsite receptors at or near the condominium tower. Project-related construction health impacts would be less than significant and no mitigation measures are required.

Operation of the proposed project would not involve the operation of significant sources of TACs and, therefore, a health risk assessment is not warranted. Project-related operation health impacts would be less than significant.

5.2.4 Cumulative Impacts

In accordance with SCAQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Cumulative projects within the local area include new development and general growth within the project area. The greatest source of emissions within the SoCAB is mobile sources. Due to the extent of the area potentially impacted from cumulative project emissions (i.e., the SoCAB), SCAQMD considers a project cumulatively significant when project-related emissions exceed the SCAQMD regional emissions thresholds shown in Table 5.2-5, *SCAQMD Significance Thresholds*.

Construction

The SoCAB is designated nonattainment for O_3 and $PM_{2.5}$ under the California and National AAQS, nonattainment for PM_{10} under the California AAQS, and nonattainment for lead (Los Angeles County only)

under the National AAQS (CARB 2014).[7] Construction of cumulative projects will further degrade the regional and local air quality. Air quality will be impacted during construction activities. Construction-related VOC emissions associated with the proposed project would potentially exceed the SCAQMD's regional significance threshold for the pollutants. Implementation of the mitigation measures would reduce the construction-related VOC emissions to less than significant.

Operation

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values is not considered by SCAQMD to be a substantial source of air pollution and does not add significantly to a cumulative impact. Operation of the project would not result in emissions in excess of the SCAQMD regional emissions thresholds. No significant cumulative impacts were identified with regard to CO hotspots. Therefore, the project's operational phase air pollutant emissions would not be cumulatively considerable and are less than significant.

5.2.5 Existing Regulations and Standard Conditions

Existing Regulations

State

- Clean Car Standards – Pavley (AB 1493)
- California Advanced Clean Cars CARB (13 CCR 1960)
- Low-Emission Vehicle Program – LEV III (13 CCR 1961.2, 1961.3)
- Statewide Retail Provider Emissions Performance Standards (SB 1368)
- Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools (13 CCR 2480)
- Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling (13 CCR 2485)
- In-Use Off-Road Diesel Idling Restriction (13 CCR 2449)
- Building Energy Efficiency Standards (Title 24, Part 6)
- California Green Building Code (Title 24, Part 11)
- Appliance Energy Efficiency Standards (Title 20)

SCAQMD

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 1113: Architectural Coatings

[7] CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS, because the SoCAB did not violate federal 24-hour PM_{10} standards from 2004 to 2007. In June 2013, the EPA approved the State of California's request, effective on July 26, 2013.

- SCAQMD Rule 1186: Street Sweeping
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to air quality that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.) subsequent design, and/or construction process.

5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.2-1 and 5.2-3.

Without mitigation, these impacts would be **significant**:

- **Impact 5.2-2** Construction activities associated with the proposed project would generate short-term VOC emissions exceeding SCAQMD's regional significance threshold for VOC.

- **Impact 5.2-4** Construction of the proposed project would expose sensitive receptors to substantial pollutant concentrations.

5.2.7 Mitigation Measures

Impact 5.2-2

2-1 During construction, the construction contractor(s) shall require the use of interior paint with 0 grams per liter (g/L) of volatile organic compounds (VOC) (i.e., zero VOC paint). Paints that emit less than the low-VOC limits of South Coast Air Quality Management District (SCAQMD) Rule 1113 are known as "super-compliant paints." A list of super-compliant VOC coating manufacturers is available at SCAQMD's website (http://www.aqmd.gov/prdas/brochures/paintguide.html). Use of super-compliant interior paints shall be noted on building plans.

Impact 5.2-4

2-2 The construction contractor(s) shall limit the daily amount of debris haul trips during the project's building demolition and asphalt demolition phases to a maximum of 17 truckloads per day (34 truck trips per day) or a total overall daily haul truck miles traveled of 680 miles. These requirements shall be noted on all construction management plans and truck trips and mileage shall be documented.

5.2.8 Level of Significance After Mitigation

Impact 5.2-2

As shown in Table 5.2-14, *Maximum Daily Regional Construction Emissions, Mitigated*, implementation of Mitigation Measure 2-1 would reduce construction-related VOC emissions to below SCAQMD's regional significance threshold for VOC. Mitigation Measure 2-1 requires the use of interior paint with 0 g/L VOC content. As shown in the table, emissions of VOC would be reduced to below the SCAQMD regional significance threshold for VOC. Therefore, with incorporation of mitigation, impacts from project-related construction activities to the regional air quality would be less than significant.

Table 5.2-14 Maximum Daily Regional Construction Emissions, Mitigated

Construction Phase(s)	Criteria Air Pollutants (pounds per day)[1, 2, 3]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 2018						
Building Demolition + Asphalt Demolition	1	11	9	<1	1	1
Building Demolition + Asphalt Demolition + Building Demo Debris Haul + Asphalt Demolition Debris Haul	2	19	16	<1	4	1
Site Preparation	<1	3	3	<1	<1	<1
Site Preparation + Site Preparation Soil Haul	1	6	5	<1	1	<1
Mass Excavation + Utility Trenching	1	8	6	<1	<1	<1
Mass Excavation + Utility Trenching + Mass Excavation Soil Haul	4	56	44	<1	5	2
Utility Trenching + Fine Grading	1	6	6	<1	<1	<1
Utility Trenching + Fine Grading + Fine Grading Soil Haul	2	21	17	<1	2	1
Building Construction	3	21	32	<1	4	2
Year 2019						
Building Construction	3	20	30	<1	4	2
Year 2020						
Building Construction	3	18	29	<1	4	2
Building Construction + Asphalt Paving + Architectural Coating	6	21	36	<1	5	2
Building Construction + Finishing/Landscaping	3	20	31	<1	4	2
Finishing/Landscaping	<1	2	2	<1	<1	<1
Maximum						
Maximum Daily Emissions	6	56	44	<1	5	2
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2013.2.2. Totals may not add up to 100 percent due to rounding.

[1] Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.

[2] Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.

[3] Incorporates Mitigation Measure AQ 2-1 and AQ 2-2. AQ 2-1 requires the use of interior paint with 0 g/L VOC content. AQ 2-2 limits the total overall daily haul truck miles traveled to 680 miles.

Impact 5.2-4

As shown in Table 5.2-15, *Localized Construction Emissions, Mitigated*, implementation of Mitigation Measure AQ 2-2 would reduce construction-related PM_{10} emissions to below SCAQMD LSTs for the overlapping building demolition, asphalt demolition, building demo debris haul, and asphalt demo debris haul phase. Mitigation Measure AQ 2-2 limits the total overall daily haul truck miles traveled to 680 miles to reduce PM_{10} emissions generated by haul trucks. Therefore, with incorporation of mitigation, localized construction impacts would be less than significant.

Table 5.2-15 Localized Construction Emissions, Mitigated

Source	Pollutants (pounds per day)[1, 2, 3]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
2018 Building Demolition + Asphalt Demolition	11	8	0.50	0.46
2018 Building Demolition + Asphalt Demolition + Building Demo Debris Haul + Asphalt Demolition Debris Haul	11	8	3.50	0.91
2018 Site Preparation	3	2	0.19	0.17
2018 Site Preparation + Site Preparation Soil Haul	3	2	0.19	0.17
2018 Mass Excavation + Utility Trenching	7	5	0.34	0.32
2018 Mass Excavation + Utility Trenching + Mass Excavation Soil Haul	7	5	0.42	0.33
2018 Utility Trenching + Fine Grading	5	5	0.37	0.34
2018 Utility Trenching + Fine Grading + Fine Grading Soil Haul	5	5	0.39	0.34
2018 Building Construction	18	15	0.87	0.84
2019 Building Construction	16	14	0.78	0.75
2020 Building Construction	15	14	0.69	0.66
2020 Building Construction + Asphalt Paving + Architectural Coating	18	18	0.93	0.88
2020 Building Construction + Finishing/Landscaping	17	16	0.83	0.79
2020 Finishing/Landscaping	2	2	0.13	0.12
SCAQMD ≤1.00-acre LST	92	647	4.00	3.00
Exceeds LST?	No	No	No	No

Source: CalEEMod Version 2013.2.2., and SCAQMD, Localized Significance Methodology, 2006, October, Appendix A.
In accordance with SCAQMD methodology, only onsite stationary sources and mobile equipment occurring on the proposed project site are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) of the proposed project site.
[1] Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
[2] Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.
[3] Incorporates Mitigation Measure AQ-2, which limits the total overall daily haul truck miles traveled to 680 miles.

5.2.9 References

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