3.2 AIR QUALITY

This section describes the existing air quality setting of the project area; identifies associated regulatory requirements; and evaluates the project's potential to result in air quality impacts related to implementation of The Bond Project (project or proposed project).

3.2.1 Environmental Setting

The project site is located within the South Coast Air Basin (SCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAB is a 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The extent and severity of the air pollution problem in the SCAB is a function of the area's natural physical characteristics (e.g., weather and topography) as well as of man-made influences (e.g., development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of pollutants throughout the SCAB, as explained below.

Climate, Meteorological, and Topographical Conditions

The climate within the SCAB varies widely between the coastal zone, inland valleys, mountain areas, and deserts. Most of the SCAB is relatively arid, with very little rainfall and abundant sunshine during the summer months. Coastal areas are characterized by long, hot, dry summers, and short, mild, relatively wet winters, also known as Mediterranean climate, while inland areas experience more extreme temperatures and little precipitation. The general region lies in the semi-permanent, high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The average annual temperature varies little throughout the basin, averaging 75°F. However, with a less pronounced oceanic influence, the eastern inland portions of the basin show greater variability in annual minimum and maximum temperatures. All portions of the SCAB have recorded temperatures over 100°F in recent years. Although the SCAB has a semiarid climate, the air near the surface is moist because of the presence of a shallow marine layer. Except for infrequent periods when dry air is brought into the basin by offshore winds, the ocean effect is dominant. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature. Annual average relative humidity is 70% at the coast and 57% in the eastern part of the basin. Precipitation in the SCAB is typically 9–14 inches annually and is rarely in the form of snow or hail, due to typically warm weather. The frequency and amount of rainfall is greater in the coastal areas of the basin.

The City of West Hollywood's climate is characterized by relatively low rainfall, with warm summers and mild winters. Average temperatures range from a high of 80°F in August to a low of approximately 48°F in January. Annual precipitation averages approximately 0.5 to 4.4 inches, falling mostly from December through March (City-Data.com 2015).

Sunlight

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain primary pollutants (mainly reactive hydrocarbons and oxides of nitrogen (NO_x)[1]) react to form secondary pollutants (primarily oxidants). Because this process is time-dependent, secondary pollutants can be formed many miles downwind of the emission sources. Southern California also has abundant sunshine, which drives the photochemical reactions that form pollutants such as ozone (O_3) and a substantial portion of fine particulate matter ($PM_{2.5}$, particles less than or equal to 2.5 microns in diameter). In the SCAB, high concentrations of O_3 are normally recorded during the late spring, summer, and early autumn months, when more intense sunlight drives enhanced photochemical reactions. Due to the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of Southern California.

Temperature Inversions

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air will mix and disperse into the upper atmosphere. However, the Southern California region frequently experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion, a layer of warm, dry air overlaying cool, moist marine air, is a normal condition in coastal Southern California. The cool, damp, and hazy sea air capped by coastal clouds is heavier than the warm, clear air, which acts as a lid through which the cooler marine layer cannot rise. The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above mean sea level (amsl), the sea breezes carry the pollutants inland to escape over the mountain slopes or through mountain passes. At a height of 1,200 feet amsl, the terrain prevents the pollutants from entering the upper atmosphere, resulting in the pollutants settling in the foothill communities. Below 1,200 feet amsl, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the daylight hours. Mixing heights for inversions are lower in the summer and inversions are more persistent, being partly responsible for the high levels of ozone observed during summer months in the SCAB. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods, allowing them to form

[1] NO_x is a general term pertaining to compounds of nitric oxide (NO), nitrogen dioxide (NO_2), and other oxides of nitrogen.

secondary pollutants by reacting in the presence of sunlight. The basin has a limited ability to disperse these pollutants due to typically low wind speeds and the surrounding mountain ranges.

As with other cities within the SCAB, the City of West Hollywood is susceptible to air inversions. This traps a layer of stagnant air near the ground where pollutants are further concentrated. These inversions produce haziness, which is caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources. Elevated concentrations of particulate matter 10 microns or less than in diameter (PM_{10}) and $PM_{2.5}$ can occur in the SCAB throughout the year, but occur most frequently in fall and winter. Although there are some changes in emissions by day of the week and by season, the observed variations in pollutant concentrations are primarily the result of seasonal differences in weather conditions.

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established minimum ambient air quality standards, or criteria, for outdoor pollutant concentrations in order to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), PM_{10}, particulate matter with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), and lead (Pb). These pollutants, as well as toxic air contaminants (TACs), are discussed as follows.[2] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors, such as hydrocarbons and NO_x. These precursors are mainly NO_x and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere ozone layer (stratospheric ozone) as well as at the Earth's surface in the troposphere (ozone). O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in

[2] The descriptions of health effects for each of the criteria air pollutants associated with project construction and operation are based on the EPA's Six Common Air Pollutants (EPA 2018a) and the CARB Glossary of Air Pollutant Terms (CARB 2019a).

Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. Nitrogen oxides (NO_x) play a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers. NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, fossil, or fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions; primarily, wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Fine particulate matter ($PM_{2.5}$) is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs. Respirable particulate matter, or coarse particulate matter (PM_{10}), is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport absorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle, as well as producing haze and reducing regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive are smokers, people who cannot breathe well through their noses, and exercising athletes (because many breathe through their mouths) (EPA 2009).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emission sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancerous health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples of TACs include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic and non-carcinogenic effects. Non-carcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. The California Air Resources Board (CARB) classified "particulate emissions from diesel-fueled engines" (i.e., diesel particulate matter) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars, and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000).

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population, and overall how odors are experienced is subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The South Coast Air Quality Management District (SCAQMD) identifies sensitive receptors as residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993).

A school and residences are located in the vicinity of the project site. The Fountain Day School (1128 North Orange Grove Avenue, Los Angeles, California 90046) is located immediately north of the project site. The nearest residences are located north and northeast of the project site.

Existing Site Conditions

Emissions from the existing land uses were estimated using CalEEMod to present the net change in criteria air pollutant emissions. The estimation of operational emissions generated under existing conditions was based on approximately 10,000 square feet of gym, 7 dwelling units in a low-rise complex, and 82 surface parking spots currently on site. See Section 3.2.4, Methodology, for a description of the methodology and assumptions applied to estimate criteria air pollutant emissions from the existing use of the project site.

3.2.2 Regulatory Setting

The U.S. Environmental Protection Agency (EPA) at the federal level, CARB at the state level, and the SCAQMD at the regional level maintain regulatory oversight for air quality in the SCAB. Applicable laws, regulations, and standards of these three agencies are described as follows.

Federal Regulations

Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The U.S. EPA is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants, setting hazardous air pollutant standards, approving state attainment plans, setting motor vehicle emission standards, issuing stationary source emission standards and permits, and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and standards based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify National Emission Standards for Hazardous Air Pollutants (HAPs) to protect public health and welfare. HAPs include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

State Regulations

Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

California air districts have based their thresholds of significance for California Environmental Quality Act (CEQA) purposes on the levels that scientific and factual data demonstrate that the air basin can accommodate without affecting the attainment date for the NAAQS or CAAQS. Since an ambient air quality standard is based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of the ambient air quality standard, this means that the thresholds established by air districts are also protective of human health.

The NAAQS and CAAQS are presented in Table 3.2-1, Ambient Air Quality Standards.

Table 3.2-1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
O_3	1 hour	0.09 ppm (180 μg/m^3)	—	Same as Primary Standard[f]
	8 hours	0.070 ppm (137 μg/m^3)	0.070 ppm (137 μg/m^3)[f]	
NO_2[g]	1 hour	0.18 ppm (339 μg/m^3)	0.100 ppm (188 μg/m^3)	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 μg/m^3)	0.053 ppm (100 μg/m^3)	
CO	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	None
	8 hours	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	
SO_2[h]	1 hour	0.25 ppm (655 μg/m^3)	0.075 ppm (196 μg/m^3)	—
	3 hours	—	—	0.5 ppm (1,300 μg/m^3)
	24 hours	0.04 ppm (105 μg/m^3)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 μg/m^3	150 μg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	20 μg/m^3	—	
$PM_{2.5}$[i]	24 hours	—	35 μg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	12 μg/m^3	12.0 μg/m^3	15.0 μg/m^3
Lead[j,k]	30-day Average	1.5 μg/m^3	—	—
	Calendar Quarter	—	1.5 μg/m^3 (for certain areas)[k]	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 μg/m^3	
Hydrogen sulfide	1 hour	0.03 ppm (42 μg/m^3)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 μg/m^3)	—	—
Sulfates	24 hours	25 μg/m^3	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%	—	—

Source: CARB 2016.

Notes: ppm = parts per million by volume; μg/m^3 = micrograms per cubic meter; mg/m^3= milligrams per cubic meter.

a California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter—PM_{10}, $PM_{2.5}$, and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms per cubic meter (μg/m^3) is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25° Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

d National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

e National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

f On October 1, 2015, the primary and secondary NAAQS for O_3 were lowered from 0.075 ppm to 0.070 ppm

g To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

h On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

i On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m^3 to 12.0 μg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m^3, as was the annual secondary standard of 15 μg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

j CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

k The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 μg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle

Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment Program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several airborne toxic control measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

Local

South Coast Air Quality Management District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SCAB, where the proposed project is located. The SCAQMD operates monitoring stations in the SCAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The SCAQMD's Air Quality Management Plans (AQMPs) include control measures and strategies to be implemented to attain the CAAQS and NAAQS in the SCAB. The SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

The most recently adopted AQMP is the 2016 AQMP (SCAQMD 2017), which was adopted by the SCAQMD governing board in March 2017. The 2016 AQMP is a regional blueprint for achieving air quality standards and healthful air. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017). Because mobile sources are the principal contributor to the SCAB's air quality challenges, the SCAQMD has been and will continue to be closely engaged with CARB and the EPA, who have primary responsibility for these sources. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality but also local businesses and the regional economy. These "win-win" scenarios are key to implementation of this 2016 AQMP with broad support from a wide range of stakeholders.

Emissions that would result from mobile and stationary sources during construction and operation of the proposed project are subject to the rules and regulations of the SCAQMD. The SCAQMD rules applicable to the proposed project construction activities may include the following:

- **Rule 401 – Visible Emissions:** This rule establishes the limit for visible emissions from stationary sources.
- **Rule 402 – Nuisance:** This rule prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property.
- **Rule 403 – Fugitive Dust:** This rule requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.
- **Rule 431.2 – Sulfur Content of Liquid Fuels:** The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose both of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the SCAQMD. The rule also affects diesel fuel supplied for mobile sources.
- **Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines:** This rule applies to stationary and portable engines rated at greater than 50 horsepower. The purpose of Rule 1110.2 is to reduce NO_x, VOCs, and CO emissions from engines. Emergency engines, including those powering standby generators, are generally exempt from the emissions and monitoring requirements of this rule because they have permit conditions that limit operation to 200 hours or less per year as determined by an elapsed operating time meter.
- **Rule 1113 – Architectural Coatings:** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- **Rule 1138 – Control of Emissions From Restaurant Operations.** This rule applies to owners and operators of commercial cooking operations, preparing food for human consumption. The rule requirements currently apply to chain-driven charbroilers used to cook meat. All other commercial restaurant cooking equipment including, but not limited to, under-fired charbroilers, may be subject to future rule provisions.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG serves as the federally designated Metropolitan Planning Organization for the Southern California region and is the largest Metropolitan Planning Organization in the United States. With respect to air quality planning and other regional issues, SCAG has prepared the *2008 Regional Comprehensive Plan: Helping Communities Achieve a Sustainable Future* (2008 RCP) for the region (SCAG 2008). The 2008 RCP is a problem-solving guidance document that directly responds to what SCAG has learned about Southern California's challenges through the annual State of the Region report card. It responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving our inter-related housing, traffic, water, air quality, and other regional challenges (SCAG 2008).

In regards to air quality, the 2008 RCP sets the policy context in which SCAG participates in and responds to the SCAQMD air quality plans and builds off the SCAQMD AQMP processes that are designed to meet health-based criteria pollutant standards in several ways (SCAG 2008). First, the 2008 RCP complements AQMPs by providing guidance and incentives for public agencies to consider best practices that support the technology-based control measures in AQMPs. Second, the 2008 RCP emphasizes the need for local initiatives that can reduce the region's greenhouse gas (GHG) emissions that contribute to climate change, an issue that is largely outside the focus of local attainment plans, which is assessed in Section 3.5, GHG Emissions. Third, the 2008 RCP emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

On April 7, 2016, SCAG's Regional Council adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS). The 2016–2040 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2016–2040 RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The 2016–2040 RTP/SCS was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders within the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In June 2016, SCAG received its conformity determination from the Federal Highway Administration and the Federal Transit Administration indicating that all air quality conformity requirements for the 2016–2040 RTP/SCS and associated 2015 Federal Transportation

Improvement Program Consistency Amendment through Amendment 15–12 have been met (SCAG 2016). As previously noted, the SCAQMD 2016 AQMP applies the updated SCAG growth forecasts assumed in the 2016–2040 RTP/SCS.

City of West Hollywood General Plan 2035 Infrastructure, Resources, and Conservation

The Infrastructure, Resources, and Conservation Element of the West Hollywood General Plan 2035 (City of West Hollywood 2011) includes air quality policies intended to limit stationary and mobile sources of air pollution, and supports techniques and technologies that would reduce emissions within the City and region. The following policies of the Infrastructure, Resources, and Conservation Element are applicable to the proposed project:

- **Policy IRC-7.2:** Support land use and transportation strategies to reduce driving rates and resulting air pollution, including pollution from commercial and passenger vehicles.
- **Policy IRC-7.3:** Promote fuel efficiency and cleaner fuels for vehicles as well as construction and maintenance equipment by requesting that City contractors provide cleaner fleets.
- **Policy IRC-7.4:** Prohibit combustion or gasoline powered engines in leaf blowers.
- **Policy IRC-7.5:** Discourage the use of equipment with two-stroke engines and publicize the benefits and importance of alternative technologies.
- **Policy IRC-7.6:** Support increased local access to cleaner fuels and cleaner energy by encouraging fueling stations that provide cleaner fuels and energy to the community.

Local Ambient Air Quality

South Coast Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved Maintenance Plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on CAAQS rather than the NAAQS. Table 3.2-2 depicts the current attainment status of the SCAB with respect to the NAAQS and CAAQS.

Table 3.2-2
South Coast Air Basin Attainment Classification

Pollutant	Designation/Classification	
	National Standards	*California Standards*
Ozone (O_3) – 1 hour	No National Standard	**Nonattainment**
Ozone (O_3) – 8 hour	**Extreme Nonattainment**	**Nonattainment**
Nitrogen Dioxide (NO_2)	Unclassifiable/Attainment	Attainment
Carbon Monoxide (CO)	Attainment/Maintenance	Attainment
Sulfur Dioxide (SO_2)	Unclassifiable/Attainment	Attainment
Coarse Particulate Matter (PM_{10})	Attainment/Maintenance	**Nonattainment**
Fine Particulate Matter ($PM_{2.5}$)	**Serious Nonattainment**	**Nonattainment**
Lead	Nonattainment	Attainment
Hydrogen Sulfide	No National Standard	Unclassified
Sulfates	No National Standard	Attainment
Visibility-Reducing Particles	No National Standard	Unclassified
Vinyl Chloride	No National Standard	No designation

Sources: EPA 2018b (national); CARB 2018 (California).
Notes: Attainment = meets the standards; Attainment/Maintenance = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or Unclassifiable = insufficient data to classify; Unclassifiable/Attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data

In summary, the SCAB is designated as a nonattainment area for federal and state O_3 standards and federal and state $PM_{2.5}$ standards. The SCAB is designated as a nonattainment area for state PM_{10} standards; however, it is designated as an attainment area for federal PM_{10} standards. The SCAB is designated as an attainment area for federal and state CO standards, federal and state NO_2 standards, and federal and state SO_2 standards. While the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard (EPA 2018b; CARB 2018).

Despite the current nonattainment status, air quality within the SCAB has generally improved since the inception of air pollutant monitoring in 1976. This improvement is mainly a result of lower-polluting on-road motor vehicles, more stringent regulation of industrial sources, and the implementation of emission reduction strategies by the SCAQMD. This trend toward cleaner air has occurred in spite of continued population growth. Despite this growth, air quality has improved significantly over the years, primarily because of the impacts of the region’s air quality control program. PM_{10} levels have declined almost 50% since 1990, and $PM_{2.5}$ levels have also declined 50% since measurements began in 1999 (SCAQMD 2013). Similar improvements are observed with O_3, although the rate of O_3 decline has slowed in recent years.

Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. SCAQMD monitors local ambient air quality at the project site. The project area's local ambient air quality is monitored by SCAQMD. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations.

The West Los Angeles – VA Hospital monitoring station, located at 11301 Wilshire Boulevard Los Angeles, California 90073, is the nearest air quality monitoring station to the project area, approximately 6.1 miles southwest of the project site. The data collected at this station are considered representative of the air quality experienced in the project vicinity. Air quality data from 2015 through 2017 for the West Los Angeles – VA Hospital monitoring station are provided in Table 3.2-3, Ambient Air Quality Data. Because SO_2, PM_{10}, and, $PM_{2.5}$, levels were not monitored at the West Los Angeles – VA Hospital monitoring station, reported values were taken from the Los Angeles - North Main Street location (1630 North Main Street, Los Angeles, California 90012), located approximately 7.6 miles southeast of the project site or from the Los Angeles – Westchester Parkway Monitoring Station (7201 West Westchester Parkway, Los Angeles, California 90045), located approximately 10.3 miles southwest of the project site.

Table 3.2-3
Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2015	*2016*	*2017*	*2015*	*2016*	*2017*
Ozone (O_3)										
West Los Angeles – VA Hospital	ppm	Maximum 1-hour concentration	California	0.09	0.102	0.085	0.099	2	0	1
	ppm	Maximum 8-hour concentration	California	0.070	0.073	0.073	0.077	3	2	3
			National	0.070	0.072	0.073	0.077	2	2	3
Nitrogen Dioxide (NO_2)										
West Los Angeles – VA Hospital	ppm	Maximum 1-hour concentration	California	0.18	0.067	0.054	0.055	0	0	0
			National	0.100	0.0676	0.0545	0.0557	0	0	0
	ppm	Annual concentration	California	0.030	0.011	0.011	ND	N/A	N/A	N/A
			National	0.053	0.012	0.012	ND	N/A	N/A	N/A
Carbon Monoxide (CO)										
West Los Angeles – VA Hospital	ppm	Maximum 1-hour concentration	California	20	ND	ND	ND	ND	ND	ND
			National	35	1.6	2.2	2.0	0	0	0
	ppm	Maximum 8-hour concentration	California	9.0	ND	ND	ND	ND	ND	ND
			National	9	1.4	1.1	1.2	0	0	0
Sulfur Dioxide (SO_2)										
Los Angeles – Westchester Parkway	ppm	Maximum 1-hour concentration	National	0.075	0.015	0.010	0.010	0	0	0
	ppm	Maximum 24-hour concentration	National	0.14	0.002	0.002	0.003	0	0	0
	ppm	Annual concentration	National	0.030	0.0005	0.0006	0.0007	N/A	N/A	N/A
Coarse Particulate Matter (PM_{10})[a]										
Los Angeles-North Main Street	μg/m^3	Maximum 24-hour concentration	California	50	88.5	74.6	96.2	ND (30)	ND (21)	ND (40)
			National	150	73.0	64.0	64.6	0.0 (0)	0.0 (0)	0.0 (0)
	μg/m^3	Annual concentration	California	20	27.0	ND	ND	N/A	N/A	N/A

Table 3.2-3
Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2015	*2016*	*2017*	*2015*	*2016*	*2017*
Fine Particulate Matter ($PM_{2.5}$)[a]										
Los Angeles-North Main Street	µg/m3	Maximum 24-hour concentration	National	35	56.4	44.3	54.9	8.4 (7)	2.1 (2)	6.1 (6)
	µg/m3	Annual concentration	California	12	12.6	12.0	16.3	N/A	N/A	N/A
			National	12.0	12.3	11.7	12.0	N/A	N/A	N/A

Sources: CARB 2019b; EPA 2019 (for 1-hour CO).

Note: O_3 = ozone; NO_2 = nitrogen dioxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; ppm = parts per million; µg/m3 = micrograms per cubic meter; N/A = not applicable; ND = insufficient data available to determine the value.

Data taken from CARB iADAM (2019b) or EPA AirData (2019) represent the highest concentrations experienced over a given year.

Exceedances of national and state standards are only shown for O_3 and particulate matter. All other criteria pollutants did not exceed either national or state standards during the years shown.

An exceedance of a standard is not necessarily related to a violation of the standard.

[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

3.2.3 Thresholds of Significance

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. Based on these thresholds, implementation of the proposed project would have a significant adverse impact related to air quality if it would:

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

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

AQ-3 Expose sensitive receptors to substantial pollutant concentrations

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

Appendix G of the CEQA Guidelines 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 project would have a significant impact on air quality. The SCAQMD *CEQA Air Quality Handbook* (SCAQMD 1993), as revised in March 2015, sets forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality (SCAQMD 2015). Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 3.2-4, SCAQMD Air Quality Significance Thresholds, are exceeded.

Table 3.2-4
SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	*Construction (pounds per day)*	*Operation (pounds per day)*
VOCs	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Lead[a]	3	3
TACs and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥10 in 1 million Cancer Burden >0.5 excess cancer cases (in areas ≥1 in 1 million) Chronic and acute hazard index ≥1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Table 3.2-4
SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds	
Ambient Air Quality Standards for Criteria Pollutants[c]	
NO_2 1-hour average NO_2 annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)
SO_2 1-hour average SO_2 24-hour average	0.25 ppm (state) and 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)
PM_{10} 24-hour average PM_{10} annual average	10.4 $\mu g/m^3$ (construction)[d] 2.5 $\mu g/m^3$ (operation) 1.0 $\mu g/m^3$
$PM_{2.5}$ 24-hour average	10.4 $\mu g/m^3$ (construction)[d] 2.5 $\mu g/m^3$ (operation)

Source: SCAQMD 2015.
Notes: SCAQMD = South Coast Air Quality Management District; VOC = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; TAC = toxic air contaminant; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxides; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
[a] The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] TACs include carcinogens and non-carcinogens.
[c] Ambient air quality standards for criteria pollutants based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
[d] Ambient air quality threshold based on SCAQMD Rule 403.

The evaluation of whether the project would conflict with or obstruct implementation of the applicable air quality plan is based on the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993), Chapter 12, Sections 12.2 and 12.3. The first criterion assesses if the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP, which is addressed in detail under in Section 3.2.5. The second criterion is if the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To evaluate the potential for the project to 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, this analysis applies the SCAQMD's construction and operational criteria pollutants mass daily thresholds, as shown in Table 4.2-4. A project would potentially result in a cumulatively considerable net increase in O_3, which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 3.2-4. These emissions-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur). This approach is used because O_3 is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (VOC and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods.

The assessment of the project's potential to expose sensitive receptors to substantial pollutant concentrations includes a localized significance threshold (LST) analysis, as recommended by the SCAQMD, to evaluate the potential of localized air quality impacts to sensitive receptors in the immediate vicinity of the project from construction and operation. For project sites of 5 acres or less, the SCAQMD LST Methodology (SCAQMD 2009) includes lookup tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., the emissions would not cause an exceedance of the applicable concentration limits for NO_2, CO, PM_{10}, and $PM_{2.5}$) without performing project-specific dispersion modeling.

The LST significance thresholds for NO_2 and CO represent the allowable increase in concentrations above background levels in the vicinity of a project that would not cause or contribute to an exceedance of the relevant ambient air quality standards, while the threshold for PM_{10} represents compliance with Rule 403 (Fugitive Dust). The LST significance threshold for $PM_{2.5}$ is intended to ensure that construction emissions do not contribute substantially to existing exceedances of the $PM_{2.5}$ ambient air quality standards. The allowable emission rates depend on the following parameters:

a. Source-Receptor Area (SRA) in which the project is located;

b. Size of the project site; and

c. Distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals).

The project site is located in Source–Receptor Area 2 (Northwest Coastal Los Angeles County). The closest sensitive receptors are existing multi-family homes located directly north of and adjacent to the project site, and east across North Ogden Drive, and the Fountain Day School located directly north and adjacent to the project site. These potential receptors would be, respectively, less than 25 meters from the project site and 25 meters from the project site (the shortest distance provided by the SCAQMD).[3]

Maximum daily emissions would be generated during the grading phase. The maximum number of acres disturbed on the peak day was estimated using the *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* (SCAQMD 2014), which provides estimated acres per 8-hour per day per piece of earth-moving equipment. While the project site is less than one acre, based on the SCAQMD guidance, it was estimated that the maximum acres on the project site that would be disturbed by off-

3 Although receptors could be closer to construction than 25 meters, the SCAQMD recommends that projects with boundaries closer than 25 meters to the nearest receptors should use the LSTs for receptors located at 25 meters (SCAQMD 2009).

road equipment would be 1 acre per day for grading and site preparation; therefore, the 1-acre LST thresholds are utilized in this analysis. The thresholds are shown in Table 3.2-5.

Table 3.2-5
Localized Significance Thresholds for Source-Receptor Area 2
(Northwest Coastal Los Angeles County)

Pollutant	LST Threshold (pounds/day)[a]
NO_2	103
CO	562
PM_{10}	4
$PM_{2.5}$	3

Source: SCAQMD 2009, Appendix B.
Notes: LST = localized significance threshold; NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
[a] Interpolated thresholds for the project site grading activity based on a 1acre site for a receptor distance of 25 meters.

In addition to the construction LST assessment, the analysis of the potential for the project to expose sensitive receptors to substantial pollutant concentrations also evaluates potential health effects associated with CO hotspots, TACs, and criteria air pollutants.

The potential for the project to result in other emissions, specifically an odor impact (Section 4.2.4), is based on the project's land use type and anticipated construction activity, and the potential for the project to create an odor nuisance pursuant to SCAQMD Rule 402.

3.2.4 Methodology

The project includes a multi-use structure of approximately 214,483 square feet, which will include an 86-room hotel, restaurant, 70 residential units, and an art gallery. The project would also include a 75,483 square-foot subterranean parking garage with a total of 175 parking spaces. Construction of the proposed project would involve demolition of 72 parking stalls and 13,718 square feet of existing buildings.

Emissions from construction and operation of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2.[4]

[4] CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the proposed project land use type and size and construction schedule were based on information provided by the project applicant, or default model assumptions if project specifics were unavailable.

Construction

Construction emissions were calculated for the estimated worst-case day over the construction period. Default CalEEMod values were used where detailed project information was not available.

It is anticipated that construction of the proposed project would commence in April 2020 and reach completion in December 2021.[5] For purposes of estimating project construction emissions, the analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Phase 1 Demolition/ Shoring and Sound Wall – April 2020
- Phase 2 Demolition / Disassembly – April 2020 – May 2020
- Grading / Site Preparation – May 2020–September 2020
- Parking / Foundation – September 2020 – January 2021
- Superstructure / Framing – January 2021 – May 2021
- Common Areas / Shell / Roofing – May 2021 – October 2021
- Exterior Finishes / Interiors / Tenant Improvements / Landscaping – October 2021 – December 2021

The construction equipment mix and estimated hours of operation per day for the criteria air pollutant emissions modeling are based on information provided by the applicant (see Table 3.2-6). For this analysis, it was assumed that heavy construction equipment would be used 5 days per week (22 days per month) during project construction. The Applicant has committed that all diesel-powered offroad equipment will meet the U.S. EPA Tier 4 Final emission standards for nonroad engines, vehicles, and equipment.

Table 3.2-6 also presents estimated worker trips, vendor (delivery) truck trips, and haul truck trips anticipated for each construction phase based on applicant provided information and using CalEEMod default values. Demolition is anticipated to generate a total of 8,100 tons of demolition debris over the two phases of demolition; however, all demolition material is anticipated to be exported off site during Phase 2. Export of demolition material is anticipated to require 401 round haul truck trips (802 one-way trips). During the grading and site preparation phase, approximately 55,375 cubic yards of material would be exported off site. Assuming a haul truck capacity of 15 cubic yards per truck, based on information provided by the applicant, it is anticipated that 3,692 round haul truck trips (7,384 one-way trips) would be required to export excavated material off site. For haul truck trips during the

5 The analysis assumes a construction start date of April 2020, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

demolition and grading/site preparation phases, a one-way trip length of 29 miles was assumed to reflect anticipated distance to the disposal site. Vendor trucks transporting concrete, steel, and other building materials were assumed during building construction phases (i.e., superstructure/framing and common areas/shell/roofing phases). Additional vendor trucks were assumed during the parking/foundation phase and the exterior finishes/interiors/tenant improvements/landscaping phase to capture potential material deliveries. Table 3.2-6 presents the construction scenario assumptions used to estimate project-generated construction emissions.

Table 3.2-6
Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Phase 1 Demolition/ Shoring and Sound Wall	4	0	0	Excavator	1	7
Phase 2 Demolition/ Disassembly	4	0	802	Tractors/Loaders/ Backhoes	1	7
Grading/Site Preparation	16	0	7,384	Excavators	2	7
				Bore/Drill Rigs	1	7
				Forklifts	1	7
				Tractors/Loaders/ Backhoes	1	7
Parking/Foundation	26	2	0	Forklifts	2	7
				Skid Steer Loaders	2	7
				Tractors/Loaders/ Backhoes	4	7
				Welders	2	7
Superstructure/ Framing	124	26	0	Forklifts	3	7
				Skid Steer Loaders	1	7
				Tractors/Loaders/ Backhoes	2	7
				Welders	2	7
Common Areas/ Shell/Roofing	124	36	0	Forklifts	3	7
				Skid Steer Loaders	1	7
				Tractors/Loaders/ Backhoes	2	7
				Welders	2	7
Exterior Finishes / Interiors / Tenant Improvements / Landscaping	22	2	0	Air Compressors	2	7

Notes: Appendix B.

Operation

Emissions from the operational phase of the project were estimated using CalEEMod Version 2016.3.2. Operational year 2021 was assumed consistent with the traffic impact study (TIS) prepared for the project (KOA 2019).

Emissions from the existing land uses were also estimated using CalEEMod to present the net change in criteria air pollutant emissions. Operational year 2019 was assumed for existing conditions. The estimation of operational emissions generated under existing conditions was based on approximately 10,000 square feet of gym, 7 dwelling units in a low-rise complex, and 82 surface parking spots currently on site.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating, water heating, and stoves are calculated in the building energy use module of CalEEMod, as described in the following text. The project and existing scenario are assumed to not include woodstoves or fireplaces (wood or natural gas). As such, area source emissions associated with hearths were not included.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of nonresidential buildings and on the default factor of pounds of VOC per building square foot per day. For the parking structure land use assumed in the project and the parking lot land use for the existing scenario, CalEEMod estimates VOC emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of VOC per square foot per day.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers using during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of nonresidential surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emission factor is based on the VOC content of the surface coatings, and SCAQMD's Rule 1113 (Architectural Coatings) governs the VOC content for interior and exterior coatings. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the residential surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating. For nonresidential land uses, surface area for painting equals 2.0 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating. For the parking garage and other asphalt surfaces assumed in the project and existing scenario, respectively, the architectural coating area is assumed to be 6% of the total square footage, consistent with the supporting CalEEMod studies provided as an appendix to the CalEEMod User's Guide (CAPCOA 2017).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per residential dwelling unit per day and grams per square foot of nonresidential building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gas emissions in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site.

The energy use from residential land uses is calculated in CalEEMod based on the Residential Appliance Saturation Study. For nonresidential buildings, CalEEMod energy intensity values (natural gas usage per square foot per year) assumptions were based on the California Commercial End-Use Survey database. CalEEMod default values for energy consumption, which assume compliance with the 2016 Title 24 Building Energy Efficiency Standards, were applied for the project analysis. However, project energy use is anticipated to be less than assumed as the project would be required to comply with the more stringent 2019 Title 24 Building Energy Efficiency Standards at the time of building construction, which become effective January 1, 2020. CalEEMod default values for energy source emissions modeling were also assumed for the existing scenario; however, energy use is anticipated to be greater as the existing buildings were built in compliance with less stringent building energy efficiency codes.

Mobile Sources

Mobile sources for the project would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the project site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. The default vehicle mix provided in CalEEMod 2016.3.2, which is based on CARB's Mobile Source Emissions Inventory model, EMFAC, version 2014, was applied for both the project and existing scenario. Emission factors representing 2021 were used to estimate emissions associated with buildout of the project consistent with the TIS.

Trip generation rates for the project and existing scenario were based on the TIS prepared for the project (KOA 2019). For the project and the existing scenario, the assumed Saturday and Sunday trip rates were adjusted in proportion to the CalEEMod default weekday, Saturday and Sunday trip rates and the TIS weekday trip rate, with the exception of the proposed project art gallery, which assumed the same trip rate for weekday, Saturday, and Sunday.

3.2.5 Impact Analysis

<u>Threshold AQ-1:</u>* *Would the project conflict with or obstruct implementation of the applicable air quality plan?

As previously discussed, the project site is located within the SCAB under the jurisdiction of the SCAQMD, which is the local agency responsible for administration and enforcement of air quality regulations for the area. The SCAQMD has established criteria for determining consistency with the 2016 AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD *CEQA Air Quality Handbook* (SCAQMD 1993). The criteria are:

- **Consistency Criterion No. 1**: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP.
- **Consistency Criterion No. 2**: The proposed project will not exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Consistency Criterion No. 1

Discussed under Threshold AQ-2, as follows, the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new air quality violations. Therefore, the proposed project would not result in a delay in attainment of the NAAQS and CAAQS specified in the AQMP. As such, the project would not conflict with Consistency Criterion No. 1 of the SCAQMD *CEQA Air Quality Handbook*.

Consistency Criterion No. 2

While striving to achieve the NAAQS for O_3 and $PM_{2.5}$ through a variety of air quality control measures, the Final 2016 AQMP also accommodates planned growth in the SCAB. Projects are considered consistent with, and would not conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors (e.g., population, employment) is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD *CEQA Air Quality Handbook*). The future emissions forecasts are primarily based on demographic and economic growth projections provided by SCAG. Thus, demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by SCAG for their 2016 RTP/SCS were used to estimate future emissions in the Final 2016 AQMP (SCAQMD 2017).

The project site is currently developed with one retail structure and seven dwelling units. The project site is located within the R3B and CC2 zoning districts. The northeastern portion of the site facing Ogden Drive, where a multifamily complex over three levels of subterranean parking is planned is located in the R3B zoning district, and the remaining portion of the site is located in the CC2 zoning district. Portions of the project site are also located within two overlay zones, the Transit Overlay Zone and the Mixed-Use Incentive Overlay Zone. The project would require a conditional use permit for the hotel, which would provide a modest increase in jobs. The project would not require a rezone to accommodate permanent population growth.

According to the SCAG Growth Forecast (an appendix to the 2016–2040 RTP/SCS), estimates that employment in the City would grow from 29,800 employees in 2012 to 37,300 employees in 2040, and population would grow from 34,800 people in 2012 to 41,800 people in 2040. As such, the addition of employees associated with the project would be minimal and would not exceed the growth projections for 2040 and later years (SCAG 2016). The 70 residential units would result in an increase of 235 persons. The additional residents would not result in an increase of persons above that anticipated in the RTP/SCS. The proposed hotel use would temporarily allow visitors to stay on site in its proposed 86 guest rooms. The temporary stay of hotel guests would be minimal in comparison to the anticipated population increase of the SCAG Growth Forecast. Therefore, the proposed project would not stimulate population growth or a population concentration or employment above what is assumed in local and regional land use plans, or in projections made by regional planning authorities.

Summary

As previously described, the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, and would not conflict with Consistency Criterion No. 1. The project does not require either a general plan amendment or rezone, and would not create additional jobs or residences beyond what is assumed in the SCAG 2016–2040 RTP/SCS. As such, the project would be consistent with the demographic growth forecasts in the SCAG 2016–2040 RTP/SCS. Therefore, the project would also be consistent with the SCAQMD 2016 AQMP and the project would not conflict with Consistency Criterion No. 2. Based on these considerations, impacts related to the project's potential to conflict with or obstruct implementation of the applicable air quality plan would be **less than significant**.

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

Construction and operation of the proposed project would have the potential to result in emissions of criteria air pollutants, which may result in a cumulatively considerable net increase of any criteria pollutant the SCAB is in nonattainment under an applicable NAAQS or CAAQS. The following discussion identifies potential short-term construction impacts and operational impacts that would result from implementation of the proposed project.

Construction Emissions

Construction of the proposed project would result in the addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment and from worker vehicles and off-site vendor truck trips. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, and the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

As discussed under 3.2.4, criteria air pollutant emissions associated with construction activity were quantified using the CalEEMod. Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated during each year of construction (2020–2021). Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by the applicant and are intended to represent a reasonable scenario based on the best information available. The Applicant will employ offroad equipment that meets the U.S. EPA’s Tier 4 Final emission standards for nonroad engines. Default values provided in CalEEMod were used where detailed project information was not available.

Implementation of the proposed project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. The project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during the building construction and grading activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites approximately two times daily depending on weather conditions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of NO_x, VOCs, CO, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as exterior application/interior paint and other finishes, and application of asphalt pavement would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings).

Table 3.2-7, Estimated Maximum Daily Construction Emissions, presents the estimated maximum unmitigated daily construction emissions generated during construction of the proposed project in each year. The values shown are the maximum summer or winter daily emissions (i.e., worst-case) results from CalEEMod. Details of the emission calculations are provided in Appendix B.

Table 3.2-7
Estimated Maximum Daily Construction Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	pounds per day					
2020	1.48	34.63	25.18	0.13	3.58	0.81
2021	21.63	7.17	17.05	0.04	1.66	0.47
Maximum daily emissions	**21.63**	**34.63**	**25.18**	**0.12**	**3.58**	**0.81**
SCAQMD threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District.
See Appendix B for complete results.
The values shown are the maximum summer or winter daily emissions results from California Emissions Estimator Model (CalEEMod). These estimates reflect the "mitigated" CalEEMod results, which reflect control of fugitive dust required by South Coast Air Quality Management District (SCAQMD) Rule 403 assuming watering of the project site two times per day, compliance with SCAQMD Rule 1113 for architectural coatings, and that all diesel-powered offroad equipment would meet Tier 4 Final emission standards.

As shown in Table 3.2-7, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction in any of the construction years. Furthermore, construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions.

Operational Emissions

Operation of the project would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from mobile sources, including vehicle trips; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment; and energy sources, including combustion of fuels used for space and water heating. As discussed in Section 3.2.4, pollutant emissions associated with long-term operation of the project and operation of the existing land uses were quantified using CalEEMod. Mobile source emissions were estimated in CalEEMod based on project-specific trip rates. CalEEMod default values were used to estimate emissions from area and energy sources for both the project and existing land uses.

Table 3.2-8 presents the net change maximum daily area, energy, and mobile source emissions associated with operation of the project in 2021 and operation of the existing land uses in 2019, and the estimated net change in emissions (project minus the existing scenario). The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix B.

Table 3.2-8
Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Emission Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	pounds per day					
Proposed Project						
Area	3.14	0.07	5.82	0.00	0.03	0.03
Energy	0.09	0.81	0.62	0.00	0.06	0.06
Mobile	2.43	11.09	28.90	0.10	7.54	2.07
Total	**5.66**	**11.97**	**35.34**	**0.10**	**7.63**	**2.16**
Existing						
Area	0.33	0.01	0.59	0.00	0.00	0.00
Energy	0.01	0.07	0.05	0.00	0.01	0.01
Mobile	0.64	2.83	7.50	0.02	1.64	0.45
Total	**0.98**	**2.91**	**8.14**	**0.02**	**1.65**	**0.46**
Net Change in Emissions						
Net Change (Proposed Project – Existing)	**4.68**	**9.06**	**27.2**	**0.08**	**5.98**	**1.70**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District.
See Appendix B for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.
The Proposed Project emissions reflect operational year 2021. The Existing emissions reflect operational year 2019.

As shown in Table 3.2-8, the net change in combined maximum daily area, energy, and mobile source emissions would not exceed the SCAQMD operational thresholds for VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$.

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

In considering cumulative impacts from the proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SCAB is designated as nonattainment for the CAAQS and NAAQS. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution to nonattainment status in the SCAB. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

The SCAB has been designated as a federal nonattainment area for O_3 and $PM_{2.5}$ and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SCAB including motor vehicles, off-road equipment, and commercial and industrial facilities. Construction and operation of the project would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. However, as indicated in Tables 3.2-7 and 3.2-8, project-generated construction and operational emissions, respectively, would not exceed the SCAQMD emission-based significance thresholds for VOC, NO_x, PM_{10}, or $PM_{2.5}$, and therefore the project would not cause a cumulatively significant impact.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Construction schedules for potential future projects near the project site are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be considered speculative.[6] However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation if the project would exceed SCAQMD thresholds. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM_{10} and $PM_{2.5}$ emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD. In addition, cumulative VOC emissions would be reduced because all future projects would be subject to SCAQMD Rule 1113 (Architectural Coating), which places limits on the VOC content of paint and other coatings. Additional SCAQMD rules that future cumulative projects would be required to comply with are discussed in Section 3.2.2 (Local).

Based on the previous considerations, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants. Impacts would be **less than significant**.

Threshold AQ-3: ***Would the project expose sensitive receptors to substantial pollutant concentrations?***

Localized Significance Thresholds Analysis

Sensitive receptors are those more susceptible to the effects of air pollution than the population at large. The SCAQMD considers that sensitive receptors may include residences, schools,

6 The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145). This discussion is nonetheless provided in an effort to show good-faith analysis and comply with CEQA's information disclosure requirements.

playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest off-site sensitive receptors to the project site include the Fountain Day School and private residences immediately north and northeast of the project site.

Construction activities associated with the proposed project would result in temporary sources of on-site fugitive dust and construction equipment emissions. Off-site emissions from vendor trucks, haul trucks, and worker vehicle trips are not included in the LST analysis, per SCAQMD guidance (SCAQMD 2009). The maximum daily on-site construction emissions generated during project construction are presented in Table 3.2-9 and compared to the maximum allowable daily emissions that would satisfy the SCAQMD localized significance criteria for SRA 2.

Table 3.2-9
Localized Significance Thresholds Analysis for Project Construction

Maximum On-Site Emissions	NO_2	CO	PM_{10}	$PM_{2.5}$
	Pounds per Day			
Construction emissions	4.51	16.65	2.46	0.38
SCAQMD LST	*57*	*585*	*4*	*3*
LST exceeded?	No	No	No	No

Source: SCAQMD 2009.
Notes:
NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.
See Appendix A for complete results.
Localized significance thresholds are shown for 1-acre project sites corresponding to a distance to a sensitive receptor of 25 meters.
These estimates include compliance with SCAQMD Rule 403 regarding fugitive dust control, including watering of an active site two times per day, and that all diesel-powered offroad equipment would meet Tier 4 Final emission standards.

As shown in Table 3.2-9, construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized impacts during construction of the project would be **less than significant.**

Health Effects of Carbon Monoxide

To verify that the project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hotspots was conducted based on the Transportation Impact Study (KOA 2019) results and the California Department of Transportation (Caltrans) Institute of Transportation Studies Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) (Caltrans 1997).

The project's TIS evaluated 9 intersections under existing and existing plus project conditions. As determined by the TIS, all intersections under the existing and existing plus project conditions operate at acceptable LOS (LOS D or better) during the AM and PM peak hour, with the exception of two intersections: Ogden Drive and Fountain Avenue (LOS F during the PM peak hour) and

Fairfax Avenue and Santa Monica Boulevard (LOS E during the PM peak hour). Under existing plus project conditions, the project's contribution to the Ogden Drive and Fountain Avenue intersection and the Fairfax Avenue and Santa Monica Boulevard intersection was determined to not cause a significant traffic impact (KOA 2019).

Based on these considerations, the project would not negatively affect the LOS of intersections in the project vicinity and therefore, would not significantly contribute to a CO hotspot. As such, potential project-generated impacts associated with CO hotspots would be **less than significant**.

Health Effects of Toxic Air Contaminants

Construction Health Risk

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or HAPs. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal HAPs, and is adopting appropriate control measures for sources of these TACs. The following measures are required by state law to reduce diesel particulate emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-Use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

The greatest potential for TAC emissions during construction would be DPM emissions from heavy equipment operations and heavy-duty trucks during construction of the project and the associated health impacts to sensitive receptors. The closest sensitive receptors are existing multi-family homes located directly north of and adjacent to the project site, and east across North Ogden Drive, and the Fountain Day School located directly north and adjacent to the project site. As shown in Table 3.2-8, maximum daily particulate matter (PM_{10} or $PM_{2.5}$) emissions generated by construction equipment operation and from haul trucks (exhaust particulate matter, or DPM), combined with fugitive dust generated by equipment operation and vehicle travel, would be well below the SCAQMD significance thresholds. Moreover, total construction of the project would last approximately 19 months, after which project-related TAC emissions would cease. Therefore, the exposure of project-related TAC emission impacts to sensitive receptors would be **less than significant**.

Operational Health Risk

No residual TAC emissions and corresponding cancer risk are anticipated after construction because construction TAC emissions associated with diesel-fueled equipment operation and diesel truck travel would cease. In addition, no long-term sources of TAC emissions are anticipated during operation of the project because the project does not entail operation of a stationary source of TAC emissions or would otherwise generate TAC emissions. Thus, the project would not result in a long-term (i.e., 9-year, 30-year, or 70-year) source of TAC emissions. Therefore, the exposure of project-related TAC emission impacts to sensitive receptors would be **less than significant**.

Health Effects of Other Criteria Air Pollutants

Construction and operation of the project would not result in emissions that would exceed the SCAQMD thresholds for VOC, NO_x., CO, SO_x, $PM_{10,}$ or $PM_{2.5}$.

As discussed in Section 3.2.1, health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019c). VOCs and NO_x are precursors to O_3, for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 CAAQS/NAAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Because construction and operation of the project would not exceed SCAQMD thresholds for VOC or NO_x, implementation of the project would not contribute to regional O_3 concentrations or the associated health effects.

Health effects associated with NO_x include lung irritation and enhanced allergic responses (see Section 3.2.1; CARB 2019c). Because proposed project construction would not generate NO_x emissions that would exceed the SCAQMD mass daily thresholds and because the SCAB is designated as in attainment of the NAAQS and CAAQS for NO_2 and the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards, the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO_2 or result in potential health effects associated with NO_2 and NO_x.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (see Section 3.2.1; CARB 2019c). CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots were discussed previously and are determined to be a less-than-significant impact. Thus, the project's CO emissions would not contribute to significant health effects associated with this pollutant.

Health effects associated with PM_{10} include premature death and hospitalization, primarily for worsening of respiratory disease (see Section 3.2.1; CARB 2019c). Construction and operation of the project would not exceed thresholds for PM_{10} or $PM_{2.5}$ and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the SCAB from coming into attainment for these pollutants. The project would also not result in substantial DPM emissions during construction and operation, and therefore, would not result in significant health effects related to DPM exposure. Additionally, the project would implement dust control strategies and be required to comply with SCAQMD Rule 403, which limits the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction and operation, the project would not result in health effects associated with PM_{10} or $PM_{2.5}$.

In summary, construction and operation of the project would not result in exceedances of the SCAQMD significance thresholds for criteria pollutants and potential health impacts associated with criteria air pollutants would be **less than significant**.

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

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and to architectural coatings. Construction would occur over approximately 19 months, and therefore potential odors would be temporary. Odors would only affect the immediately surrounding land uses, and would not affect a substantial number of people. Therefore, impacts associated with odors during construction would be considered **less than significant**.

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The project entails construction of residential, hotel, restaurant, and art gallery uses and would not result in the creation of a land use that is commonly associated with odors. Therefore, project operations would result in an odor impact that is **less than significant**.

3.2.6 Mitigation Measures

Project impacts would be **less than significant**, and no mitigation is required.

3.2.7 Level of Significance After Mitigation

Impacts to air quality as a result of the proposed project would be **less than significant**. Therefore, no mitigation is required.

3.2.8 References Cited

CAPCOA (California Air Pollution Control Officers Association). 2017. *California Emissions Estimator Model (CalEEMod) User's Guide Version 2016.3.2.* Prepared by Trinity Consultants and the California Air Districts. November 2017. http://www.caleemod.com/.

CARB (California Air Resources Board). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October 2000. Accessed March 13, 2017. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf.

CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Accessed March 13, 2017. http://www.arb.ca.gov/ch/landuse.htm.

CARB. 2016. "Ambient Air Quality Standards." May 4, 2016. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

CARB. 2018. "Area Designation Maps/State and National." Last reviewed December 28, 2018. http://www.arb.ca.gov/desig/adm/adm.htm.

CARB. 2019a. "Glossary of Air Pollutant Terms". https://ww2.arb.ca.gov/about/glossary.

CARB. 2019b. iADAM Air Quality Data Statistics." Accessed March 2019. http://arb.ca.gov/adam.

CARB. 2019c. "Common Air Pollutants." https://ww2.arb.ca.gov/resources/common-air-pollutants

City-Data.com. 2015. "West Hollywood, California." Accessed May 20, 2015. http://www.city-data.com/city/West-Hollywood-California.html.

City of West Hollywood. 2011. West Hollywood General Plan 2035. Accessed March 13, 2017. http://www.weho.org/Home/ShowDocument?id=7929.

EPA (U.S. Environmental Protection Agency). 2009. "Integrated Science Assessment for Particulate Matter." EPA/600/R-08/139F.

EPA. 2016. "Integrated Science Assessment for Oxides of Nitrogen-Health Criteria (2016 Final Report)." U.S. EPA, EPA/600/R-15/068, 2016.

EPA. 2018a. "Criteria Air Pollutants" Last updated March 8, 2018. https://www.epa.gov/criteria-air-pollutants.

EPA. 2018b. "Region 9: Air Quality Analysis, Air Quality Maps." Last updated September 28, 2018. http://www.epa.gov/region9/air/maps/.

EPA. 2019. "AirData: Access to Air Pollution Data." Accessed March 2019. https://www.epa.gov/outdoor-air-quality-data/monitor-values-report.

KOA (KOA Corporation). 2019. *Traffic Impact Study for 7811 Santa Monica Boulevard – Orange Grove Mixed Use Project West Hollywood, CA*. February 25.

SCAG (Southern California Association of Governments). 2008. 2008 "Regional Comprehensive Plan: Helping Communities Achieve a Sustainable Future". Accessed March 13, 2017. http://www.scag.ca.gov/NewsAndMedia/Pages/RegionalComprehensive Plan.aspx.

SCAG. 2016. *2016-2040 "*Regional Transportation Plan/Sustainable Communities Strategy Demographics and Growth Forecast". Adopted April 2016. Accessed March 13, 2017. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf.

SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*.

SCAQMD. 2003. "White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution". August 2003. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf.

SCAQMD. 2009. "Final Localized Significance Threshold Methodology." http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2

SCAQMD. 2013. *Final 2012 Air Quality Management Plan*. February 2013. Accessed August 2016. Accessed January 2018. http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan.

SCAQMD. 2014. "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds." Accessed March 13, 2017. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2.

SCAQMD. 2015. "SCAQMD Air Quality Significance Thresholds." Originally published in *CEQA Air Quality Handbook*, Table A9-11-A. Revised March 2015. Accessed March 13, 2017. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

SCAQMD. 2017. "Final 2016 Air Quality Management Plan." Accessed July 2017. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf.