## 3.2 AIR QUALITY

This section describes the existing air quality setting of the project area; identifies associated regulatory requirements; evaluates the project's potential to conflict with an applicable air quality plan, violate any air quality standard or contribute substantially to an existing or project violation, 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, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people; and identifies mitigation measures related to implementation of the proposed project.

## 3.2.1 Environmental Setting

## **Climate and Topography**

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 characterized as having a Mediterranean climate (typified as semiarid with mild winters, warm summers, and moderate rainfall). 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 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 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.

### Climate

Moderate temperatures, comfortable humidity, and limited precipitation characterize the climate in the SCAB. The average annual temperature varies little throughout the basin, averaging 75 degrees Fahrenheit (°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 to 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 about 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  $(NO_x)$ ) react to form "secondary" pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind of the emission sources. 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 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.

The project site is located in an area that 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.

## **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).

A library and residences are located in the vicinity of the project site. The West Hollywood Public Library (625 North San Vicente Boulevard West Hollywood, California 90069) is located southeast of the project site, approximately 150 feet from the nearest point of planned construction. The nearest residences are located northwest of the project site, approximately 410 feet from the nearest point of planned construction.

The West Hollywood Park (647 North San Vicente Boulevard West Hollywood, California 90069) is located immediately east of the project site. Hereafter, the portion of West Hollywood Park that would be affected by the proposed project is referred to as the "park site." A portion of the subterranean parking garage would extend beneath the park site. Two aboveground pedestrian access points would be constructed in the park to provide access to the subterranean garage. Additionally, backfill and site grading would occur over the top of the proposed subterranean parking garage.

## **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<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), particulate matter with an aerodynamic diameter

equal to or less than 10 microns (PM<sub>10</sub>), particulate matter with an aerodynamic diameter equal to or less than 2.5 microns (PM<sub>2.5</sub>), and lead (Pb). These pollutants, as well as toxic air contaminants (TACs), are discussed below. In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

**Ozone** ( $O_3$ ).  $O_3$  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 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<sub>2</sub>). NO<sub>2</sub> is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO<sub>2</sub> in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. Nitrogen oxides (NO<sub>x</sub>) play a major role, together with VOCs, in the atmospheric reactions that produce O<sub>3</sub>. NO<sub>x</sub> is formed from fuel combustion under high temperature or pressure. In addition, NO<sub>x</sub> 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<sub>2</sub> can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections.

**Carbon Monoxide** (**CO**). 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

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 2015) and the CARB Glossary of Air Pollutant Terms (CARB 2015).

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** ( $SO_2$ ).  $SO_2$  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<sub>2.5</sub> and PM<sub>10</sub> represent fractions of particulate matter. Fine particulate matter (PM<sub>2.5</sub>) is roughly 1/28 the diameter of a human hair. PM<sub>2.5</sub> results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, PM<sub>2.5</sub> can be formed in the atmosphere from gases such as sulfur oxides (SO<sub>x</sub>), NO<sub>x</sub>, and VOCs. Respirable particulate matter, or coarse particulate matter (PM<sub>10</sub>), is about 1/7 the thickness of a human hair. Major sources of PM<sub>10</sub> 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<sub>2.5</sub> and PM<sub>10</sub> 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<sub>2.5</sub> and PM<sub>10</sub> 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).

**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 (VOCs). 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.

8595

#### Non-Criteria Air Pollutants

Toxic Air Contaminants (TACs). 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 noncancer 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 the state of 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 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. Diesel particulate matter 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 diesel particulate matter (CARB 2000). To reduce the cancer risk associated with diesel particulate matter, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000).

# 3.2.2 Relevant Plan, Policies, and Ordinances

Regulatory oversight for air quality in the SCAB is maintained by the U.S. Environmental Protection Agency (EPA) at the federal level, CARB at the state level, and the South Coast Air Quality Management District (SCAQMD) at the regional level. Applicable laws, regulations, and standards of these three agencies are described below.

#### **Federal**

#### Federal Clean Air Act

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<sub>3</sub> protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O<sub>3</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, 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<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and standards based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> 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.

#### State

#### California Air Resources Board

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<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and visibility-reducing particles are values that are not to be exceeded. All

others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 3.2-1, Ambient Air Quality Standards.

Table 3.2-1
Ambient Air Quality Standards

		California Standards <sup>a</sup>	National St	tandards <sup>b</sup>	
Pollutant	Averaging Time	Concentration <sup>c</sup>	Primary <sup>c,d</sup>	Secondary <sup>c,e</sup>	
O <sub>3</sub>	1 hour	0.09 ppm (180 μg/m³)	_	Same as Primary	
	8 hours	0.070 ppm (137 μg/m³)	0.070 ppm (137 μg/m³) <sup>f</sup>	Standard <sup>f</sup>	
NO <sub>2</sub> g	1 hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m <sup>3</sup> )	Same as Primary	
	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m <sup>3</sup> )	Standard	
СО	1 hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	None	
	8 hours	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )		
SO <sub>2</sub> h	1 hour	0.25 ppm (655 μg/m <sup>3</sup> )	0.075 ppm (196 μg/m <sup>3</sup> )	_	
	3 hours	_	_	0.5 ppm (1,300 μg/m <sup>3</sup> )	
	24 hours	0.04 ppm (105 μg/m³)	0.14 ppm (for certain areas) <sup>9</sup>	_	
	Annual	_	0.030 ppm (for certain areas) <sup>9</sup>	_	
PM <sub>10</sub> i	24 hours	50 μg/m³	150 μg/m³	Same as Primary	
	Annual Arithmetic Mean	20 μg/m³	_	Standard	
PM <sub>2.5</sub> i	24 hours	_	35 μg/m³	Same as Primary Standard	
	Annual Arithmetic Mean	12 μg/m³	12.0 μg/m³	15.0 μg/m <sup>3</sup>	
Lead <sup>j,k</sup>	30-day Average	1.5 μg/m³	_	_	
	Calendar Quarter	_	1.5 μg/m³ (for certain areas) <sup>k</sup>	Same as Primary Standard	
	Rolling 3-Month Average	_	0.15 μg/m³		
Hydrogen sulfide	1 hour	0.03 ppm (42 μg/m³)	_	_	
Vinyl chloride <sup>j</sup>	24 hours	0.01 ppm (26 μg/m³)	_	_	
Sulfates	24- hours	25 μg/m³	_	_	
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 2016a.

**Notes:** ppm = parts per million by volume;  $\mu g/m^3$  = micrograms per cubic meter;  $mg/m^3$  = milligrams per cubic meter.

<sup>&</sup>lt;sup>a</sup> California standards for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, suspended particulate matter—PM<sub>10</sub>, PM<sub>2.5</sub>, 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.

National standards (other than O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O<sub>3</sub> 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<sub>10</sub>, 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/m³) is equal to or less than one. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.
- 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.
- 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 O₃ were lowered from 0.075 ppm to 0.070 ppm
- 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.
- On June 2, 2010, a new 1-hour SO<sub>2</sub> 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<sub>2</sub> 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.
- On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15  $\mu$ g/m³ to 12.0  $\mu$ g/m³. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35  $\mu$ g/m³, as was the annual secondary standard of 15  $\mu$ g/m³. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150  $\mu$ g/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 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.
- The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

As part of its diesel risk reduction program, CARB adopted an Airborne Toxic Control Measure (ATCM) that applies to new and in-use stationary compression-ignition (i.e., diesel) engines. The ATCM was adopted in 2004 and revised in November 2010 with an effective date of May 19, 2011. After December 31, 2008, the ATCM requires that new emergency standby engines must comply with EPA emissions standards applicable to a 2007-model-year off-road engine of the same horsepower rating. The ATCM further limits the particulate matter emissions from an emergency standby engine operated less than 50 hours per year for maintenance and testing to 0.15 gram per brake-horsepower-hour.

#### 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.

On December 7, 2012, the SCAQMD's governing board adopted the Final 2012 AQMP (SCAQMD 2013), which is designed to meet applicable federal and state requirements for O<sub>3</sub> and particulate matter. The 2012 AQMP was approved by CARB on January 25, 2013, and the portions of the AQMP that address the O<sub>3</sub> NAAQS were approved by the EPA on September 3, 2014. The Final 2012 AQMP demonstrates attainment of the federal 24-hour PM<sub>2.5</sub> standard by 2014 in the SCAB through adoption of all feasible measures. The 2012 AQMP also updates the EPA-approved 8-hour O<sub>3</sub> control plan with new measures designed to reduce reliance on the Clean Air Act Section 182(e)(5) long-term measures for NO<sub>x</sub> and VOC reductions. Based on general plans for cities and counties in the SCAB, demographic growth forecasts for various socioeconomic categories (i.e., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for its 2012 Regional Transportation Plan were used in the 2012 AQMP. In addition, emission reductions resulting from SCAQMD regulations adopted by June 2012 and CARB regulations adopted by August 2011 are included in the baseline. The 2012 AQMP reduction and control measures, which are outlined to mitigate emissions, are based on existing and projected land use and development. The Final 2012 AQMP was approved by CARB on January 25, 2013, and was reviewed by the EPA with a final ruling on April 14, 2016.

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<sub>10</sub> 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<sub>x</sub> and particulates during combustion and of enabling the use of add-on control

8595

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<sub>x</sub>, 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 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

8595

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.

## 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

An area is designated "in attainment" when it is in compliance with the NAAQS and/or CAAQS. These standards are set by the EPA or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare with a margin of safety. The criteria pollutants of primary concern considered in this air quality assessment include O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. Although there are no ambient standards for VOCs—also referred to as reactive organic compounds or gases (ROGs), or NO<sub>x</sub>—they are important because they are precursors to O<sub>3</sub>.

The entire SCAB is designated as a nonattainment area for both federal and state O<sub>3</sub> standards. The EPA has classified the SCAB as an "extreme" nonattainment area and has mandated that it achieve attainment no later than June 15, 2024. The federal NO<sub>2</sub> standard was revised in 2010, and all areas of California have been designated unclassifiable/attainment for the revised standard; the SCAB was designated attainment (maintenance) under the previous (1971) NO<sub>2</sub> standard. The SCAB is designated as an attainment area for the state NO<sub>2</sub> standards. The SCAB is designated as an attainment area for federal and state CO and SO<sub>2</sub> standards, as an attainment area for the federal PM<sub>10</sub> standard, and as a nonattainment area for the state PM<sub>10</sub> standards. Los Angeles County is designated unclassifiable/attainment for state (30-day average) and federal (quarter average) lead standards. However, the Los Angeles County portion of the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard for near-source monitors.

The attainment classifications for these criteria pollutants are outlined in Table 3.2-2, SCAB Attainment Classification.

Table 3.2-2
South Coast Air Basin Attainment Classification

Pollutant	Averaging Time	Designation/Classification
	Federal Standards	
O <sub>3</sub>	8 hours	Nonattainment/Extreme
NO <sub>2</sub>	1 hour	Unclassifiable/attainment
	Annual arithmetic mean	Attainment (maintenance)
CO	1 hour; 8 hours	Attainment (maintenance)
SO <sub>2</sub>	24 hours; annual arithmetic mean	Unclassifiable/attainment
PM <sub>10</sub>	24 hours	Attainment (maintenance)
PM <sub>2.5</sub>	24 hours; annual arithmetic mean	Nonattainment (serious)
Pb	Quarter	Unclassifiable/attainment
	3-month average	Nonattainment (partial)
	State Standards	
O <sub>3</sub>	1 hour; 8 hours	Nonattainment
NO <sub>2</sub>	1 hour; annual arithmetic mean	Attainment
CO	1 hour; 8 hours	Attainment
SO <sub>2</sub>	1 hour; 24 hours	Attainment
PM <sub>10</sub>	24 hours; annual arithmetic mean	Nonattainment
PM <sub>2.5</sub>	Annual arithmetic mean	Nonattainment
Pba	30-day average	Attainment
Sulfates (SO <sub>4</sub> )	24 hours	Attainment
Hydrogen sulfide (H <sub>2</sub> S)	1 hour	Unclassified
Vinyl chloride <sup>a</sup>	24 hours	No designation
Visibility-reducing particles	8 hours (10:00 a.m6:00 p.m.)	Unclassified

Sources: EPA 2016a (federal); CARB 2016b (state).

**Notes:**  $O_3$  = ozone;  $NO_2$  = nitrogen dioxide; CO = carbon monoxide;  $SO_2$  = sulfur dioxide;  $PM_{10}$  = coarse particulate matter;  $PM_{2.5}$  = fine particulate matter; Pb = lead.

<sup>a</sup> CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. The Southern Los Angeles County portion of the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard.

## Local Ambient Air Quality

The project area's local ambient air quality is monitored by SCAQMD and CARB. CARB monitors ambient air quality at approximately 250 air quality monitoring stations across the state. 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 4.3 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 2013 through 2015 for the West Los Angeles – VA Hospital monitoring station are provided in Table 3.2-3, Ambient Air Quality Data. Because SO<sub>2</sub>, PM<sub>10</sub>, and, PM<sub>2.5</sub>, 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 9.1 miles southeast of the project site or from the Los Angeles, California 90045), located approximately 9.1 miles southwest of the project site.

Table 3.2-3
Local Ambient Air Quality Data

Pollutant	Averaging Time	2013	2014	2015	Most Stringent Ambient Air Quality Standard	Monitoring Station	
O <sub>3</sub>	1-hour	0.088 ppm	0.116 ppm	0.102 ppm	0.09 ppm	West Los	
	8-hours	0.076 ppm	0.095 ppm	0.073 ppm	0.070 ppm	Angeles-VA Hospital	
NO <sub>2</sub>	1-hour	0.051 ppm	0.063 ppm	0.067 ppm	0.100 ppm	West Los	
Annual	Annual	N/A	0.013 ppm	0.011 ppm	0.030 ppm	Angeles-VA Hospital	
CO	1-hour	1.9 ppm	2.2 ppm	1.6 ppm	20 ppm	West Los Angeles-	
	8-hours	N/A	N/A	1.4 ppm	9.0 ppm	VA Hospital	
SO <sub>2</sub>	24-hours	0.002 ppm	N/A	N/A	0.14 ppm	Los Angeles –	
	Annual	N/A	N/A	N/A	0.03 ppm	Westchester Parkway	
PM <sub>10</sub>	24-hours	74.5 µg/m <sup>3</sup>	86.8 µg/m <sup>3</sup>	88.5 µg/m <sup>3</sup>	50 μg/m <sup>3</sup>	Los Angeles-North	
	Annual	35.3 μg/m <sup>3</sup>	30.2 μg/m <sup>3</sup>	27.0 μg/m <sup>3</sup>	20 μg/m <sup>3</sup>	Main Street	
PM <sub>2.5</sub>	24-hours	54.8 μg/m <sup>3</sup>	65.0 μg/m <sup>3</sup>	70.3 μg/m <sup>3</sup>	35 μg/m <sup>3</sup>	Los Angeles-North	
	Annual	12.0 μg/m <sup>3</sup>	N/A	12.3 µg/m <sup>3</sup>	12 μg/m³	Main Street	

Sources: CARB 2016c; EPA 2016b (for 1-hour CO).

**Note:** Data taken from CARB iADAM (2015c) or EPA AirData (2014b) represent the highest concentrations experienced over a given year.  $O_3$  = ozone;  $NO_2$  = nitrogen dioxide; CO = carbon monoxide;  $SO_2$  = sulfur dioxide;  $PM_{10}$  = coarse particulate matter;  $PM_{2.5}$  = fine particulate mat

The number of days exceeding the ambient air quality standards is shown in Table 3.2-4, Frequency of Air Quality Standard Violations.

Table 3.2-4
Frequency of Air Quality Standard Violations

	Number of Days Exceeding Standard								
	State 1-Hour O₃		State National 8-Hour O <sub>3</sub> 8-Hour O <sub>3</sub>		National 24-Hour PM <sub>2.5</sub> ª				
Year	(West Los Angeles – VA Hospital)	(West Los Angeles – VA Hospital)	(West Los Angeles – VA Hospital)	(Los Angeles – N Main St Station)	(Los Angeles – N Main St Station)				
2013	0	1	0	21.4 (20)	1.1 (1)				
2014	1	6	4	18.7 (38)	N/A (6)				
2015	2	3	0	13.8 (30)	8.4 (7)				

Source: CARB 2016c

Note: O<sub>3</sub> = ozone; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter, N/A = data not available

Exceedances of national and state standards are only shown for O<sub>3</sub> 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.

# 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:

- a. Conflict with or obstruct implementation of the applicable air quality plan
- b. Violate any air quality standard or contribute substantially to an existing air quality violation
- c. 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)
- d. Expose sensitive receptors to substantial pollutant concentrations
- e. Create objectionable odors 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

Measurements of PM<sub>10</sub> and PM<sub>2.5</sub> 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.

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 3.2-5, SCAQMD Air Quality Significance Thresholds, are exceeded.

A project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for  $O_3$  (see Table 3.2-2), 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 3.2-5. These emission-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) because  $O_3$  itself is not emitted directly (see the discussion of  $O_3$  and its sources in Section 3.2.1), 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.

Table 3.2-5 SCAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation			
	Criteria Pollutants Mass Daily Thresholds				
VOCs	75 lb/day	55 lb/day			
NO <sub>x</sub>	100 lb/day	55 lb/day			
CO	550 lb/day	550 lb/day			
SO <sub>x</sub>	150 lb/day	150 lb/day			
PM <sub>10</sub>	150 lb/day	150 lb/day			
PM <sub>2.5</sub>	55 lb/day	55 lb/day			
Leada	3 lb/day	3 lb/day			
TACs and Odor Thresholds					
TACsb	Maximum incremental cancer risk ≥ 10 in 1 million				
	Chronic & acute hazard index ≥ 1.0 (projec	t increment)			
Odor	Project creates an odor nuisance pursuant	to SCAQMD Rule 402			
Am	bient Air Quality Standards for Criteria Polluta	ants <sup>c</sup>			
NO <sub>2</sub> 1-hour average  NO <sub>2</sub> 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 <sub>2</sub> 1-hour average SO <sub>2</sub> 24-hour average	0.25 ppm (state) and 0.075 ppm (federal – 99 <sup>th</sup> percentile) 0.04 ppm (state)				

Table 3.2-5
SCAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation		
PM <sub>10</sub> 24-hour average	10.4 μg/m³ (construction) <sup>d</sup>			
	2.5 μg/m³ (operation)			
PM <sub>10</sub> annual average	1.0 μg/m³			
PM <sub>2.5</sub> 24-hour average	10.4 μg/m³ (construction)d			
	2.5 μg/m³ (operation)			

Source: SCAQMD 2015.

Notes: SCAQMD = South Coast Air Quality Management District; VOC = volatile organic compounds; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter; TAC = toxic air contaminant; NO<sub>2</sub> = nitrogen dioxide: SO<sub>2</sub> = sulfur dioxides: lb/day = pounds per day; lb/day = pounds per day; ppm = parts per million; μo/m<sup>3</sup> = micrograms per cubic meter.

- dioxide; SO<sub>2</sub> = sulfur dioxides; lb/day = pounds per day; lb/day = pounds per day; ppm = parts per million; μg/m³ = micrograms per cubic meter.

  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.
- TAC's include carcinogens and non-carcinogens.
- c Ambient air quality standards for criteria pollutants based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
- Ambient air quality threshold based on SCAQMD Rule 403.

## 3.2.4 Methodology

Emissions from construction activities for the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2. 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.

In addition to the emission-based thresholds listed in Table 3.2-5, the SCAQMD also recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of construction activities. Such an evaluation is referred to as a localized significance threshold (LST) analysis. For project sites of 5 acres or less, 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<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>) 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 nearest sensitive receptors would be located in the West Hollywood Park, adjacent to the park site where the subterranean parking garage is proposed. These potential receptors would be approximately 65 meters from the hotel site and 25 meters (the shortest distance provided by the SCAQMD) from the park site.<sup>2</sup> During construction of the project, the following phases are anticipated to overlap:

- Park site grading and site preparation and hotel site demolition
- Hotel site demolition and hotel site parking garage construction
- Park site garage construction and hotel site grading and site preparation
- Hotel site grading and site preparation and park site backfill/grading

Maximum daily emissions would be generated during the overlap of park site grading and hotel site demolition activities. 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/day for 1 grader, 1 dozer, and 3 tractors during the park site grading and site preparation and 2 dozers during the hotel site demolition. Based on the SCAQMD guidance, it was estimated that the maximum acres on the project site that would be disturbed by off-road equipment would be 2.5 acres/day for the park site grading and 1 acre/day for the hotel site demolition, for a total of 3.5 acres/day. For the park site grading, because the SCAQMD does not provide lookup table values for 2.5 acres, the LST values for 2 and 5 acres within SRA 2 were interpolated to generate LSTs for 2.5 acres with sensitive receptors located within 82-feet (25 meters) from construction activity. For the hotel site demolition activity, because the SCAQMD does not provide lookup table values for a distance of 65 meters, the LST values for 50 and 100 meters within SRA 2 were interpolated to generate LSTs for 65 meters for a 1-acre site. The LSTs for the park grading and hotel site demolition overlap (3.5 acres total disturbed) are based on the weighted average of the emissions from each activity and the LSTs for the individual sites. The thresholds are shown in Table 3.2-6, Localized Significance Thresholds for Source-Receptor Area 2 (Northwest Coastal Los Angeles County).

-

Although receptors could be closer to the park site, 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 2008).

Table 3.2-6
Localized Significance Thresholds for Source-Receptor Area 2
(Northwest Coastal Los Angeles County)

Pollutant	Park Site Grading Threshold (pounds/day) <sup>a</sup>	Hotel Site Demolition Threshold (pounds/day) <sup>b</sup>	Park Site Grading and Hotel Site Demo Threshold (pounds/day) <sup>c</sup>
NO <sub>2</sub>	159	109	132
CO	944	953	949
PM <sub>10</sub>	7	17	12
PM <sub>2.5</sub>	4	5	5

Source: SCAQMD 2008, Appendix C.

Note: 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 park site grading activity based on a 2.5 acre site for a receptor distance of 25 meters.
- Interpolated thresholds for the hotel site demolition based on a 1-acre site for a receptor distance of 65 meters.
- Thresholds for the concurrent park site grading and hotel site demolition are based on the weighted average of the emissions from each activity and the interpolated LSTs for each site.

## 3.2.5 Impact Analysis

# Threshold A: 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 2012 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**

As discussed under Threshold B below, 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<sub>3</sub> and PM<sub>2.5</sub> through a variety of air quality control measures, the Final 2012 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 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) were used to estimate future emissions in the Final 2012 AQMP (SCAQMD 2013).

The project site is currently developed with three commercial buildings (retail uses and nightclub), three surface parking lots, and several concrete courtyards and patios interspersed among the buildings. The project site is located within the CN2 and CC2 zoning districts. The portion of the site that fronts La Peer Drive (comprising the width of four standard lots, or 200 feet) is within the CC2 zone and the portion of the site that fronts Robertson Boulevard (comprising the width of eight standard lots, or 400 feet) is within the CN2 zone, with the zoning boundary extending through the approximate middle of the project site. The project footprint would extend under a portion of the park site, which is located immediately east of the project site. Two levels of subterranean parking would be constructed below the western portion of the park site, which is zoned PF.

The West Hollywood General Plan identifies the project site as being located in the Melrose/Beverly District, which is primarily developed with arts and design studios, offices, and related businesses. This area is now known as the West Hollywood Design District. Robertson Boulevard, which the proposed project would partially front, is designated as a "Pedestrian Destination Street." The project site is not currently located within a specific plan area. West Hollywood Park is identified as Public Facilities and Public Open Space in the West Hollywood General Plan.

The Robertson Lane Specific Plan is proposed as part of the project to accommodate a hotel/commercial development on a site that is currently within the CN2 and CC2 commercial districts, with a portion of the subterranean parking structure being located within the PF zone. The proposed Robertson Lane Specific Plan would allow for greater height and greater floor area on the project site and would allow for the development of hotel uses, which are prohibited within the CN2 zoning district. The proposed project would not result in direct population growth because the project does not include the development of additional housing. However,

the proposed project would increase the number of people temporarily staying at the project site with the proposed hotel use and require approximately 392 employees with implementation of the proposed project. The project site currently provides employment for approximately 100 employees; therefore, the project site would result in a net operational increase of 292 employees with project implementation.

According to the SCAG Growth Forecast (an appendix to the 2012–2035 RTP/SCS), employment in the City is anticipated to grow from 32,300 employees in 2008 to 34,500 employees in 2020 to 36,600 employees in 2035 (SCAG 2012). The increase in employment on the project site (292 employees) would be minimal in comparison to the anticipated increase of the SCAG Growth Forecast. According to the SCAG Growth Forecast, population in the City is anticipated to grow from 34,400 people in 2008 to 35,100 people in 2020 to 36,100 people in 2035 (SCAG 2012). The proposed project would not result in permanent population growth, but the proposed hotel use would temporarily allow visitors to stay on site in its proposed 241 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.

In 2016, SCAG adopted a new RTP/SCS, which includes an updated growth forecast. The SCAG 2016–2040 RTP/SCS Growth Forecast (SCAG 2016) 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 approximately 292 employees associated with the project would be minimal and would not exceed the growth projections for 2040 and later years. In addition, as previously mentioned, the proposed hotel use would not result in permanent residency on site.

Overall, the proposed project would indirectly stimulate population growth through the addition of new employees and staff. The SCAG RTP/SCS was developed based on the growth factors assumed within the general plans of the participating jurisdictions. Since the CN2 zone does not currently allow for hotel uses, the portion of the project site under the CN2 zone was not evaluated as such in the SCAG RTP/SCS. Consequently, the proposed General Plan Amendment and Zone Change would change the project site's land use designation from CN2 and CC2 to Robertson Lane Specific Plan. However, the employment growth associated with the re-designation of the project site would be minimal (292 employees divided by the 2012–2035 RTP/SCS Growth Forecast of 34,500 in 2020 or divided by the 2016–2040 RTP/SCS Growth Forecast of 37,300 in 2040 equals <1%) in comparison to the anticipated increase of the SCAG Growth Forecast. Since the project would be consistent with the SCAG 2012–2035 RTP/SCS, the project would also be consistent with the SCAQMD AQMP because demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by

SCAG for their 2012 RTP were used to estimate future emissions in the Final 2012 AQMP (SCAQMD 2012). The project would therefore meet Consistency Criterion No. 2 of the SCAQMD *CEQA Air Quality Handbook* because the proposed project would not exceed the assumptions in the AQMP or increments based on the year of project build-out and phase.

### **Summary**

As described above, 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 GP Amendment and Zone Change would change the project site's (1.94 acres) land use designation from CN2 and CC2 to Robertson Lane Specific Plan. Accordingly, there would be employee growth associated with the re-designation of the project site; however, the additional employees would be minimal in comparison to the anticipated increase of the SCAG Growth Forecast. Additionally, the proposed project would not result in permanent, direct population growth. As such, the project would be consistent with the demographic growth forecasts in the SCAG 2012–2035 RTP/SCS. Therefore, the project would also be consistent with the SCAQMD 2012 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 B: Would the project violate any air quality standard or contribute substantially to an existing air quality violation?

Construction and operation of the proposed project would have the potential to result in emissions of criteria air pollutants from mobile, area, and/or stationary sources, which may cause exceedances of federal and state ambient air quality standards or contribute to existing nonattainment of ambient air quality standards. 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 onsite 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, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

Draft EIR for the Robertson Lane Hotel Project

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 (2017 through 2019). 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. Default values provided in CalEEMod were used where detailed project information was not available.

The proposed project includes a multi-use hotel of approximately 262,315 square feet (sf) that would vary from four to nine stories in height (equating to approximately 27 feet to 113 feet in height). The hotel would have 241 guestrooms of varying configurations and sizes and would include retail space, restaurant space, outdoor dining, hotel meeting spaces, a nightclub, a gym and spa, back-of-house areas, a lobby, circulation space, and design showroom space. The project would include a subterranean parking garage extending beneath the project site and beneath the park site, with an underground tunnel connecting the two sites. Construction of the proposed project would involve demolition of 21,000 square feet of surface parking and 41,907 square feet of commercial uses.

The multi-use hotel building would provide approximately 1,151 parking spaces and 7 off-loading spaces in a subterranean garage, partially located underneath the project site and partially located underneath West Hollywood Park. Two aboveground pedestrian access points would be constructed in the park to provide access to the subterranean garage.

It is anticipated that construction of the proposed project would commence in April 2017 and reach completion in October 2019. For purposes of estimating project construction emissions, the analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Park Site Grading and Site Preparation: April 2017 through September 2017
- Hotel Site Demolition: September 2017 through October 2017
- Park Site Garage Construction: September 2017 through January 2018
- Hotel Site Grading and Site Preparation: October 2017 through April 2018
- Park Site Backfill, Site Grading, and Park Construction: January 2018 through March 2018
- Hotel Site Building Construction: April 2018 through August 2019
- Hotel Site Architectural Coating: August 2019 through September 2019
- Surface Paved Areas September 2019 through October 2019

The construction equipment mix and estimated hours of operation per day for the criteria air pollutant emissions modeling are based on CalEEMod default values (see Table 3.2-7). For this analysis, it was assumed that heavy construction equipment would be used 5 days per week (22 days per month) during project construction. Table 3.2-7 also presents estimated workers anticipated for each construction sequence based on CalEEMod default values. To estimate motor vehicle emissions generated by worker trips (i.e., light duty trucks and automobiles), it was assumed that each worker would generate two one-way trips.

In addition to construction equipment operation and worker trips, emissions from hauling trucks and vendor trucks (e.g., delivery trucks) were estimated. Haul truck trips were assumed during the grading, site preparation, and demolition phases, and vendor trucks transporting concrete, steel, and other building materials were assumed during the parking garage and multi-use hotel construction. Approximately 5,850 one-way haul truck trips were assumed to export excavated soils during the parking garage grading and site preparation phase, and approximately 13,838 one-way haul truck trips were assumed to export soil off site during the multi-use hotel grading and site preparation phase. It is assumed that parking backfill would result in 1,163 one-way haul truck trips and that demolition of the existing site uses would result in approximately 1,000 one-way haul truck trips to export demolition waste. The lengths of these trips were estimated using CalEEMod defaults (worker trip length: 14.7 miles; vendor trip length: 6.9 miles; hauling trip length: 20 miles). Estimated daily worker and vendor trips and total estimated haul truck trips are provided in Appendix C.

Table 3.2-7
Construction Scenario Assumptions

Construction Phase	Workers Trips	Equipment	Quantity	Hours/Day
Park Site – Grading and Site	15	Excavators	1	8
Preparation		Graders	1	8
		Rubber Tired Dozers	1	8
		Tractors/Loaders/Backhoes	3	8
Hotel Site – Demolition	15	Concrete/Industrial Saws	1	8
		Excavators	3	8
		Rubber Tired Dozers	2	8
Park Site – Garage	98	Cranes	1	7
Construction		Forklifts	3	8
		Generator Sets	1	8
		Tractors/Loaders/Backhoes	3	7
		Welders	1	8
Hotel Site – Grading and Site	15	Excavators	1	8
Preparation		Graders	1	8
		Rubber Tired Dozers	1	8
		Tractors/Loaders/Backhoes	3	8

Table 3.2-7
Construction Scenario Assumptions

Construction Phase	Workers Trips	Equipment	Quantity	Hours/Day
Park Site – Backfill, Site	15	Excavators	1	8
Grading, and Park Construction		Graders	1	8
		Rubber Tired Dozers	1	8
		Tractors/Loaders/Backhoes	3	8
Hotel Site – Building	92	Cranes	1	7
Construction		Forklifts	3	8
		Generator Sets	1	8
		Tractors/Loaders/Backhoes	3	7
		Welders	1	8
Hotel Site – Architectural Coating	43	Air Compressors	1	6
Surface Paved Areas	15	Pavers	2	8
		Paving Equipment	2	8
		Rollers	2	8

Source: Appendix C.

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<sub>10</sub> and PM<sub>2.5</sub> 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 three 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<sub>x</sub>, VOCs, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. 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 3.2-8, Estimated Unmitigated 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 C.

Table 3.2-8
Estimated Unmitigated Maximum Daily Construction Emissions

Year	VOC (pounds/day)	NO <sub>x</sub> (pounds/day)	CO (pounds/day)	SO <sub>x</sub> (pounds/day)	PM <sub>10</sub> (pounds/day)	PM <sub>2.5</sub> (pounds/day)
Year 2017	9.20	98.94	78.11	0.16	12.40	6.73
Year 2018	8.40	95.15	78.58	0.16	12.64	7.21
Year 2019	69.48	24.72	26.85	0.05	2.67	1.62
Maximum daily emissions	69.48	98.94	78.58	0.16	12.64	7.21
Pollutant threshold	75	100	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Source: See Appendix C for complete results.

Notes:

The values shown are the maximum summer or winter daily emissions results from CalEEMod.

These estimates reflect control of fugitive dust required by SCAQMD Rule 403 and compliance with SCAQMD Rule 1113 for architectural coatings.

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

As shown in Table 3.2-8, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> 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. In addition, the proposed project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during grading activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering the active sites approximately three times daily, depending on weather conditions. For these reasons and for the reasons described above, construction of the proposed project would not violate any air quality standard or contribute substantially to an existing air quality violation and impacts would be less than significant.

#### **Operational Emissions**

Following the completion of construction activities, the project would generate VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from mobile sources, including vehicular traffic generated by hotel guests, commercial users, and visitors; 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 and cooking appliances.

The proposed project would impact air quality through the vehicular traffic generated by the project. Emissions associated with project-generated daily traffic were modeled using tripgeneration rates from the Traffic Impact Study (Appendix J). No additional vehicle trips were associated with the proposed parking garages. The motor vehicles using the subterranean parking garage and their associated emissions would be captured from the multi-use hotel development on

site. CalEEMod was utilized to estimate daily emissions from proposed vehicular sources. CalEEMod default data, including temperature, trip characteristics, variable start information, and trip distances, were conservatively used for the model inputs. Project-related traffic was assumed to be comprised of a mixture of vehicles in accordance with the model outputs for traffic.

In addition to estimating mobile source emissions, CalEEMod was also used to estimate emissions from the proposed project's area sources, which include consumer products, gaspowered landscape maintenance, and architectural coatings for maintenance of the multi-use hotel building. Criteria pollutant emissions from energy sources, which include natural gas appliances and space and water heating, were also estimated using CalEEMod. Default values for natural gas consumption rates were used.

#### Raseline

The existing commercial land use also generates air pollutant emissions, which are primarily associated with vehicular traffic. Emissions generated during operation of the existing commercial uses were estimated to provide a baseline for comparison to projected operational emissions generated by buildout of the project. Year 2015 was used to represent existing conditions.

The estimation of operational area source emissions generated under existing (baseline) conditions was based on approximately 5,802 square feet of retail, 12,950 square feet of gym, 6,764 square feet of quality restaurant, 10,325 square feet of design showroom, and 12,040 square feet of nightclub currently on-site. Vehicle trip generation was based on the rates by land use type in the Traffic Impact Study (Appendix J). Energy use for the baseline is based on the "historical" option in CalEEMod, which incorporates 2005 Title 24 standards, since the existing buildings were constructed before the year 2005. Table 3.2-9 presents the maximum area, energy, and mobile source emissions under baseline conditions. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of emission calculations are provided in Appendix C.

Table 3.2-9
Baseline - Existing Commercial Uses Estimated Unmitigated
Maximum Daily Operational Emissions

	VOC	NO <sub>x</sub>	СО	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Emission Source	(pounds/day)	(pounds/day)	(pounds/day)	(pounds/day)	(pounds/day)	(pounds/day)
Area	0.78	0.00	0.00	0.00	0.00	0.00
Energy	0.05	0.49	0.41	0.00	0.04	0.04
Mobile	5.71	11.99	50.63	0.09	6.38	1.81
Combined total emissions	6.54	12.48	51.04	0.09	6.42	1.85

Source: See Appendix C for detailed results.

**Note:** The values shown are the maximum summer or winter daily emissions results from CalEEMod. Includes compliance with SCAQMD Rule 1113 for architectural coatings.

Area sources = hearths, consumer product use, architectural coatings, and landscape maintenance equipment. Energy sources = natural gas. Mobile sources = motor vehicles.

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

### **Proposed Project Operations**

The estimation of operational area source emissions generated under the proposed project is based on approximately 18,130 square feet of retail, 33,300 square feet of quality restaurant, 10,325 square feet of design showroom, 241 room hotel, and 3,780 square feet of nightclub. Vehicle trip generation is based on the rates by land use type provided in the Traffic Impact Study (Appendix J). Energy use for the proposed project is based on compliance with the 2013 Title 24 standards. Estimated maximum daily operation emissions of the proposed project are shown in Table 3.2-10. Table 3.2-10 also presents the net change in emissions when subtracting the existing land use emissions shown in Table 3.2-9 from the estimated proposed project-generated emissions. The net change in criteria air pollutant emissions is then compared to the SCAQMD operational thresholds, which are listed in Table 3.2-10.

Table 3.2-10
Proposed Project Estimated Unmitigated Maximum Daily Operational Emissions

	VOC	NO <sub>x</sub>	СО	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Emission Source</b>	(pounds/day)	(pounds/day)	(pounds/day)	(pounds/day)	(pounds/day)	(pounds/day)
Area	10.72	0.00	0.06	0.00	0.00	0.00
Energy	0.37	3.40	2.85	0.02	0.26	0.26
Mobile	17.45	35.02	153.27	0.37	25.43	7.15
Combined total emissions	28.54	38.42	156.18	0.39	25.69	7.41
Baseline emissions	6.54	12.48	51.04	0.09	6.42	1.85
Net change in emissions	22.00	25.94	105.14	0.30	19.27	5.56
Pollutant threshold	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

**Source:** See Appendix C for detailed results.

**Note:** The values shown are the maximum summer or winter daily emissions results from CalEEMod. Includes compliance with SCAQMD Rule 1113 for architectural coatings. Project emissions are based on the "Mitigated" outputs in order to incorporate the 2013 Title 24 standards (i.e., 25% reduction versus 2008 Title 24).

Area sources = hearths, consumer product use, architectural coatings, and landscape maintenance equipment. Energy sources = natural gas. Mobile sources = motor vehicles.

lb/day = pounds per day; VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 3.2-10, the net change in combined maximum daily area, energy, and vehicular source emissions would not exceed the SCAQMD operational thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. As such, operation of the proposed project would not violate

any air quality standard or contribute substantially to an existing air quality violation and impacts would be **less than significant.** 

Threshold C: 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

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 3.2-8 and 3.2-10, project-generated construction and operational emissions, respectively, would not exceed the SCAQMD emission-based significance thresholds for VOC, NOx,  $PM_{10}$ , or  $PM_{2.5}$ , and therefore the project would not cause a cumulatively significant impact.

Regarding localized impacts, cumulative PM<sub>10</sub> and PM<sub>2.5</sub> 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. Although the project would involve the implementation of Rule 403 through dust management practices, the maximum daily PM<sub>10</sub> and PM<sub>2.5</sub> concentrations would exceed LSTs during project construction activities, as discussed under Threshold D below. Mitigation measure MM-AQ-1 and MM-AQ-2 (see Section 3.2.6 below) would reduce PM<sub>10</sub>, and PM<sub>2.5</sub> ambient air quality impacts to less than significant levels. MM-AQ-1 would reduce fugitive dust to the extent feasible and

MM-AQ-2 would require off-road equipment with engines rated at 50 horsepower or greater to apply Tier 3 or better engines. 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. However, with mitigation the project would not exceed significance thresholds for PM<sub>10</sub> and PM<sub>2.5</sub>. As such, the proposed project would not have a considerable contribution to the SCAB's nonattainment designation for PM<sub>10</sub> and PM<sub>2.5</sub>, and therefore the project would not cause a cumulatively significant impact.

In summary, because the project falls below project-specific impact thresholds during construction and operations, the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants. Impacts are considered to be **less than significant with mitigation incorporated.** 

Threshold D: 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, 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 single-family residences northwest of the project site (approximately 410 feet from the nearest point of planned construction) and West Hollywood Park within and immediately east, northeast, and southeast of the project construction area. Potential sensitive receptors in the West Hollywood Park would be the most proximate to the project, approximately 65 meters from the hotel site and 25 meters (the shortest distance provided by the SCAQMD) from the parking garage 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 2014). The maximum allowable daily emissions that would satisfy the SCAQMD localized significance criteria for SRA 2 are presented in Table 3.2-11 and compared to the maximum daily on-site construction emissions generated during park site grading, hotel site demolition, and concurrent emissions from both activities, which are rounded up to the nearest whole number.

Table 3.2-11
On-Site Emissions and Localized Significance Thresholds Analysis
for Project Construction (pounds/day)

Pollutant	Park Site Grading On- Site Emissions	Park Site Grading Threshold <sup>a</sup>	Hotel Site Demolition On-Site Emissions	Hotel Site Demolition Threshold <sup>b</sup>	Park Site Grading and Hotel Site Demo On-Site Emissions	Park Site Grading and Hotel Site Demo Threshold <sup>c</sup>	Exceeds LST?
NO <sub>2</sub>	36	159	43	109	79	132	No
CO	25	944	34	953	59	949	No
PM <sub>10</sub>	5	7	6	17	11	12	No
PM <sub>2.5</sub>	3	4	3	5	6	5	Yes

Source: SCAQMD 2008.

Notes: See Appendix C for detailed results. These estimates reflect control of fugitive dust required by Rule 403.

LST = localized significance threshold; NO<sub>2</sub> = nitrogen dioxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter; PM<sub>2.5</sub> = fine particulate matter

- a Interpolated thresholds for the park site grading activity based on a 2.5 acre site for a receptor distance of 25 meters.
- Interpolated thresholds for the hotel site demolition based on a 1-acre site for a receptor distance of 65 meters.
- Thresholds for the concurrent park site grading and hotel site demolition are based on the weighted average of the emissions from each activity and the interpolated LSTs for each site.

As shown in Table 3.2-11, construction activities on each individual site would not generate emissions in excess of site-specific LSTs. However, concurrent construction activities would exceed the LST for PM<sub>2.5</sub>. Therefore, site-specific construction impacts during construction of the project would be potentially significant. Diesel equipment would be subject to the CARB ATCM for in-use off-road diesel fleets, which would minimize diesel particulate matter emissions; however, mitigation is required to reduce localized emissions of PM<sub>2.5</sub>. Mitigation measures MM-AQ-1 and MM-AQ-2 are set forth to reduce PM<sub>2.5</sub> emissions during construction, and impacts would be **less than significant with mitigation incorporated**.

# Threshold E: Would the project create objectionable odors affecting a substantial number of people?

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. Such odors are temporary and generally occur at magnitudes that would not affect substantial numbers of people and would generally be confined to the project site. 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 hotel, retail, restaurant, and design showroom uses and would not result in the

8595

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

The project would generate on-site PM<sub>10</sub> and PM<sub>2.5</sub> emissions during construction associated with fugitive dust generation and exhaust from off-road diesel-powered construction equipment. Compliance with SCAQMD Rule 403 and an associated reduction in approximately 61% of fugitive dust emissions was assumed in the estimated project-generated emissions (Table 3.2-8 and Table 3.2-11). Consistent with SCAQMD Rule 403, it is required that fugitive dust generated by grading and construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures outlined in MM-AQ-1. Fugitive dust control measures outlined in MM-AQ-1 shall be implemented to the extent feasible to reduce impacts to sensitive receptors. Mitigation measure MM-AQ-2 is intended to reduce exhaust particulate matter emissions associated with equipment operation during earth moving activities.

- **MM-AQ-1** The following dust control measures shall be implemented by the contractor/builder to reduce fugitive dust coarse and fine particulate matter ( $PM_{10}$  and  $PM_{2.5}$ ) emissions generated during earthmoving construction activities:
  - a. During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.
  - b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour (mph).
  - c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with soil binders to prevent dust generation.
  - d. Speeds on unpaved roads shall be reduced to less than 15 mph.
  - e. All grading and excavation operations shall be halted when wind speeds exceed 25 mph.
  - f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and/or washed at the end of each workday.

- g. All trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered and/or a minimum 2 feet of freeboard shall be maintained.
- h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by the South Coast Air Quality Management District (SCAQMD)).
- i. Any additional requirements of SCAQMD Rule 403 shall be reviewed and complied with.

MM AQ-2 During project demolition and construction, off-road equipment with engines rated at 150 horsepower or greater, shall meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Section 2423(b)(1). Based on the anticipated equipment for these phases, this measure would be applicable to, but not limited to, excavators, graders, rubber-tired dozers, and cranes.

# 3.2.7 Significance after Mitigation

Table 3.2-12 quantifies the project construction emissions with Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines applied to off-road equipment with engines rated at 150 horsepower or greater per MM-AQ-2. As shown, implementation of MM-AQ-2 would reduce LST impacts of PM<sub>2.5</sub> to less than significant levels. Additionally, MM-AQ-1 would further minimize fugitive dust to the extent feasible. Impacts would therefore be less than significant with mitigation incorporated.

Table 3.2-12
On-Site Emissions and Localized Significance Thresholds Analysis for Project
Construction with Tier 3 Equipment (pounds per day)

Pollutant	Park Site Grading and Hotel Site Demo On-Site Emissions <sup>a</sup>	Park Site Grading and Hotel Site Demo Threshold <sup>b</sup>	Exceeds LST?
NO <sub>2</sub>	39	132	No
CO	46	949	No
PM <sub>10</sub>	6	12	No
PM <sub>2.5</sub>	4	5	No

Source: SCAQMD 2009.

Notes: See Appendix C for detailed results.

LST = localized significance threshold; NO<sub>2</sub> = nitrogen dioxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter; PM<sub>2.5</sub> = fine particulate matter

These estimates reflect control of fugitive dust required by Rule 403 and Mitigation Measure AQ-2.

Thresholds for the concurrent park site grading and hotel site demolition are based on the weighted average of the emissions from each activity and the interpolated LSTs for each site.

8595

## 3.2.8 References

- CARB (California Air Resources Board). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October 2000. Accessed May 21, 2015. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf.
- CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Accessed February 15, 2016. http://www.arb.ca.gov/ch/landuse.htm.
- CARB. 2010." Glossary of Air Pollution Terms." CARB website. October 19, 2010. Accessed October 9, 2015. http://www.arb.ca.gov/html/gloss.htm.
- CARB. 2015. "Glossary of Air Pollution Terms." CARB website. Accessed November 2015. http://www.arb.ca.gov/html/gloss.htm.
- CARB. 2016a. "Ambient Air Quality Standards." May 4, 2016. Accessed at: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.
- CARB. 2016b. "Area Designation Maps/State and National." Last updated May 5, 2016. http://www.arb.ca.gov/desig/adm/adm.htm.
- CARB. 2016c. "iADAM Air Quality Data Statistics." Accessed June 6, 2016. http://arb.ca.gov/adam.
- 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 October 9, 2015. http://www.weho.org/Home/ShowDocument?id=7929.
- EPA. 2015. What are the Six Common Air Pollutants? Accessed October 9, 2015. http://www3.epa.gov/airquality/urbanair/.
- EPA. 2016a. "Region 9: Air Quality Analysis, Air Quality Maps." Last updated April 27, 2016. http://www.epa.gov/region9/air/maps/.
- EPA. 2016b. Monitor Values Report. Last updated February 23, 2016. Accessed June 6, 2016. http://www.epa.gov/airdata/ad\_rep\_mon.html.
- SCAG (Southern California Association of Governments). 2008. 2008 Regional Comprehensive Plan: Helping Communities Achieve a Sustainable Future.

8595

3.2-36

- SCAG. 2012. Regional Transportation Plan 2012-2035 Growth Forecast Appendix. Accessed February 17, 2016. http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP\_GrowthForecast.pdf.
- SCAG. 2016. 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy Demographics and Growth Forecast. Adopted April 2016. 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?sfvrsn=2.
- SCAQMD. 2007. *Final 2007 Air Quality Management Plan*. June 2007. Accessed May 21, 2015. http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/2007-air-quality-management-plan.
- SCAQMD. 2008. Final Localized Significance Threshold Methodology. Accessed October 11, 2015. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. June 2003; revised July 2008.
- SCAQMD. 2014. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website last update in 2014. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2.
- SCAQMD. 2013. *Final 2012 Air Quality Management Plan*. February 2013. Accessed February 15, 2016. http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan.
- SCAQMD. 2015. "SCAQMD Air Quality Significance Thresholds." Originally published in *CEQA Air Quality Handbook*, Table A9-11-A. Revised March 2015. Accessed July 17, 2015. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

March 2017