4. ENVIRONMENTAL IMPACT ANALYSIS
B. AIR QUALITY

1. INTRODUCTION

This section addresses air emissions generated by construction and operation of the Project. The analysis also addresses consistency of the Project with air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP), and the City of Los Angeles General Plan. The analysis of Project-generated air emissions focuses on whether the Project would cause an exceedance of an ambient air quality standard or a SCAQMD numeric indicator. Details regarding the air quality analysis are provided in the Air Quality Technical Report provided in Appendix C of this Draft EIR.

2. ENVIRONMENTAL SETTING

a. Existing Conditions

(1) Regional Context

(a) Criteria Pollutants

The Project Site is located within the South Coast Air Basin (Air Basin), which is shown in **Figure 4.B-1**, *Boundaries of the South Coast Air Quality Management District and Federal Planning Areas*. The Air Basin is an approximately 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 Air Basin consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Air Basin, as it is a coastal plain with connecting broad valleys and low hills.

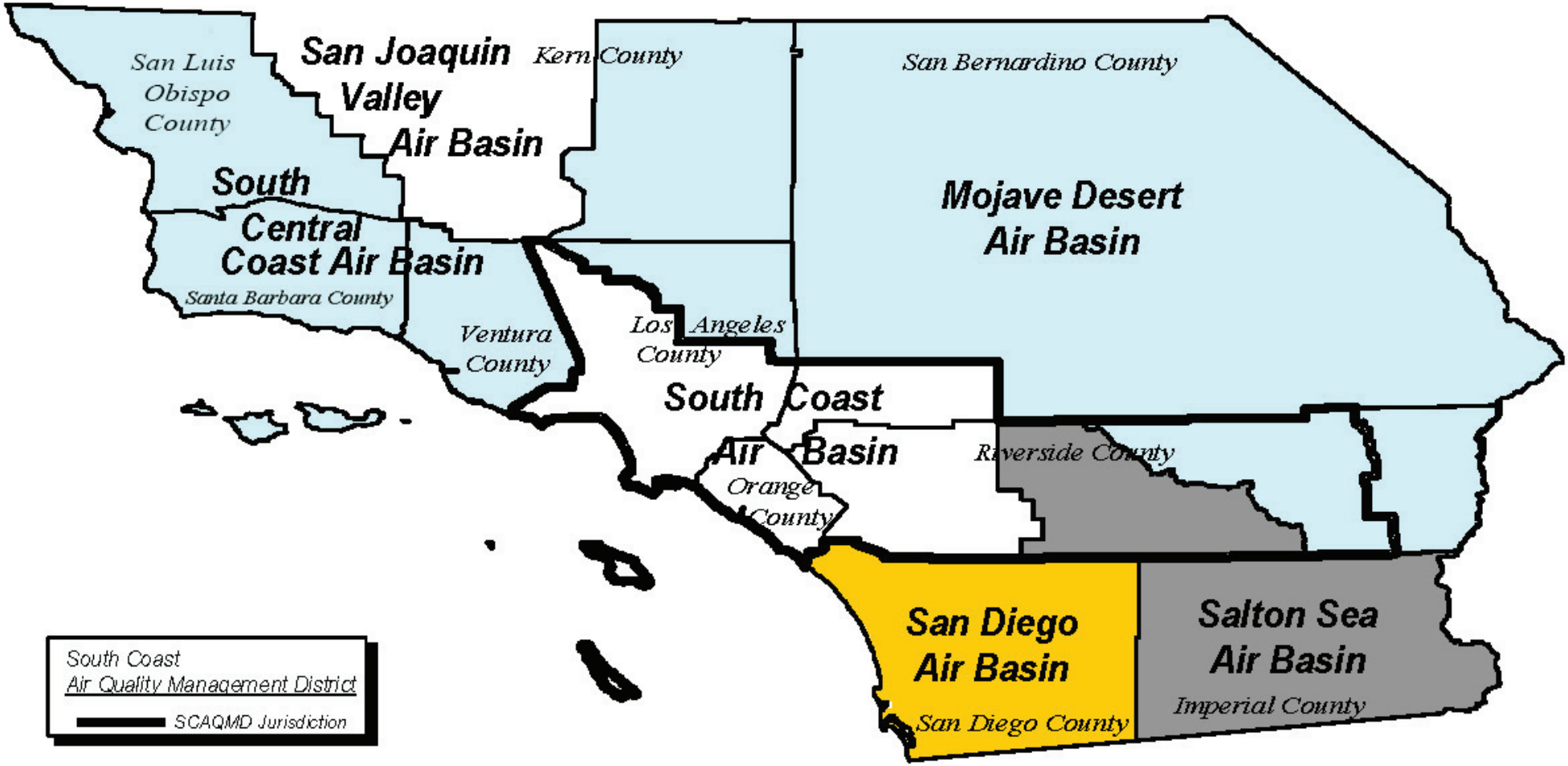
The Air Basin lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The usually mild climatological pattern is interrupted by periods of hot weather, winter storms, or Santa Ana winds. The extent and severity of pollutant concentrations in the Air Basin is a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential. The Air Basin's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone, which is a secondary pollutant that forms through photochemical reactions in the atmosphere. Thus, the greatest air pollution impacts throughout the Air Basin typically occur from June through September. This condition is generally attributed to the emissions occurring in the Air Basin, light winds, and shallow vertical atmospheric mixing. These factors reduce the potential for pollutant dispersion causing elevated air pollutant levels. Pollutant concentrations in the Air Basin vary with location, season, and time of day. Concentrations of ozone, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Air Basin and adjacent desert.

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the United States Environmental Protection Agency (USEPA) and are subject to emissions control requirements adopted by federal, state and local regulatory agencies. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) for each of the monitored pollutants and their effects on health are summarized in **Table 4.B-1,** *Ambient Air Quality Standards*. The NAAQS and CAAQS have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. A brief description of the health effects of these criteria air pollutants are provided below.

Ozone (O_3): Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds and nitrogen oxides (NO_X) under favorable meteorological conditions such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of ozone irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower the lung efficiency.

Volatile Organic Compounds (VOCs). VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the State as toxic air contaminants. These are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons, as are architectural coatings. Emissions of VOCs themselves are not "criteria" pollutants; however, they contribute with NO_X to formation of O_3 and are regulated as O_3 precursor emissions.

Nitrogen Dioxide (NO_2) and Nitrogen Oxides (NO_x): NO_X is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO_2 and nitric oxide (NO), which can quickly oxidize in the atmosphere to form NO_2. Ambient air quality standards have been promulgated for NO_2, which is a reddish-brown, reactive gas. The principal form of NO_X produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO_2, creating the mixture of NO and NO_2 referred to as NO_X. Major sources of NO_X emissions include power plants, large industrial facilities, and motor vehicles. Emissions of NO_X are a precursor to the formation of ground-level ozone. NO_2 can potentially irritate the nose and throat, aggravate lung and heart problems, and may increase susceptibility to respiratory infections, especially in people with asthma. According to the California Air Resources Board (CARB), "NO_2 is an oxidizing gas capable of damaging cells lining the respiratory tract. Exposure to NO_2 along with other traffic-related pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the



Boundaries of the South Coast Air Quality Management District and Federal Planning Areas

1020 S. Figueroa Street Project

Source: South Coast Air Quality Management District, 2014.

FIGURE

4.B-1

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Table 4.B-1

Ambient Air Quality Standards

Pollutant	Average Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
O_3 [h]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
NO_2 [i]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m³)	None	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		53 ppb (100 µg/m³)	Same as Primary Standard	
CO	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10mg/m³)		9 ppm (10 mg/m³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
SO_2 [j]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)[9]
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[j]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) [j]	—	
PM_{10} [k]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
$PM_{2.5}$ [k]	24 Hour	No Separate State Standard		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³ [k]	15 µg/m³	
Lead [l,m]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[m]	Same as Primary Standard	
	Rolling 3-Month Average [m]	--		0.15 µg/m³		
Visibility Reducing Particles [n]	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates (SO_4)	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride [l]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Table 4.B-1 (Continued)

Ambient Air Quality Standards

Pollutant	Average Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]

[a] *California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.*

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

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

[d] *Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.*

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

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

[g] *Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.*

[h] *On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.*

[i] *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 ppb.*

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

[k] *On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$.*

[l] *The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

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

[n] *In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.*

Source: California Air Resources Board, Ambient Air Quality Standards (10/1/15), http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed January 2016.

effect of allergens in allergic asthmatics, especially in children."[1] NO_2 also contributes to the formation of PM_{10}. The terms "NO_X" and "NO_2" are sometimes used interchangeably. However, the term "NO_X" is primarily used when discussing emissions, usually from combustion-related activities. The term "NO_2" is primarily used when discussing ambient air quality standards. More specifically, NO_2 is regulated as a criteria air pollutant under the Clean Air Act and subject to the ambient air quality standards, whereas NO_X and NO are not. In cases where the thresholds of significance or impact analyses are discussed in the context of NO_X emissions, it is based on the conservative assumption that all NO_X emissions would oxidize in the atmosphere to form NO_2.

Carbon Monoxide (CO): Carbon monoxide is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Sulfur Dioxide (SO_2): Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Sulfur dioxide potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Particulate Matter (PM_{10} and $PM_{2.5}$): The human body naturally prevents the entry of larger particles into the body. However, small particles including fugitive dust, with an aerodynamic diameter equal to or less than ten microns (PM_{10}) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), can enter the body and are trapped in the nose, throat, and upper respiratory tract. These small particulates could potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses.[2] Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very

[1] *California Air Resources Board, "Nitrogen Dioxide – Overview," http://www.arb.ca.gov/research/aaqs/caaqs/no2-1/no2-1.htm. Accessed May 2016.*

[2] *California Air Resources Board, "Particulate Matter – Overview," http://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm. Accessed May 2016.*

young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

(b) Air Toxics

In addition to criteria pollutants, the SCAQMD periodically assesses levels of toxic air contaminants (TACs) in the Air Basin. A TAC is defined by California Health and Safety Code Section 39655:

> *"Toxic air contaminant" means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412(b)) is a toxic air contaminant.*

Between July 2012 and June 2013, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES IV), which is a follow-up to previous air toxics studies conducted in the Air Basin. The MATES IV Final Report was issued in May 2015. The study, based on actual monitored data throughout the Air Basin, consisted of several elements. These included a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize carcinogenic risk across the Air Basin from exposure to TACs. The study applied a two-kilometer (1.24-mile) grid over the Air Basin and reported carcinogenic risk within each grid space (covering an area of four square kilometers or 1.54 square miles). The study concluded that the average of the modeled air toxics concentrations measured at each of the monitoring stations in the Air Basin equates to a background cancer risk of approximately 418 in 1,000,000 primarily due to diesel exhaust, which is about 65 percent lower than the previous MATES III cancer risk.[3] Subsequent to the SCAQMD's risk calculations estimates performed for MATES IV, the California Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA) updated the methods for estimating cancer risks.[4] The updated method utilizes higher estimates of cancer potency during early life exposures and uses different assumptions for breathing rates and length of residential exposures. When combined together, SCAQMD staff estimates that risks for the same inhalation exposure level will be about 2.5 to 2.7 times higher using the updated methods. This would be reflected in the average lifetime air toxics risk estimated from the monitoring sites data going from 418 per million to 1,023 per million.[5] Under the updated OEHHA methodology, adopted in March of 2015, the relative reduction in risk from the MATES IV results compared to MATES III would be the same (about 65 percent).

Approximately 68 percent of the risk is attributed to diesel particulate emissions, approximately 22 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately 10 percent of all airborne carcinogenic risk is attributed to stationary sources (which include industries and other certain businesses, such as dry cleaners and chrome plating operations).[6] The study

[3] *South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, (2015) ES-2.*

[4] *California Environmental Protection Agency, Office of Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, (2015).*

[5] *South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, (2015) 2-11.*

[6] *South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, (2015) ES-2.*

also found lower ambient concentrations of most of the measured air toxics compared to the levels measured in the previous study conducted during 2004 and 2006. Specifically, benzene and 1,3-butadiene, pollutants generated mainly from vehicles, were down 35 percent and 11 percent, respectively.[7] The reductions were attributed to air quality control regulations and improved emission control technologies. In addition to air toxics, MATES IV included continuous measurements of black carbon and ultrafine particles (particles smaller than 0.1 microns in size), which are emitted by combustion of diesel fuels. Sampling sites located near heavily-trafficked freeways or near industrial areas were characterized by increased levels of black carbon and ultrafine particles compared to more rural sites.

As part of the MATES IV, the SCAQMD prepared maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps represent the estimated number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years). The grids in which the Project Site is located are shown in **Figure 4.B-2**, *Background Inhalation Cancer Risk for Project Site Area*. As shown, the background potential cancer risk per million people using the update OEHHA methodology is estimated at 1,516 per million (compared to an overall South Coast Air Basin-wide risk of 1,023 per million).[8] Generally, the risk from air toxics is lower near the coastline: it increases inland, with higher risks concentrated near diesel sources (e.g., freeways, airports, and ports).

(2) Local Air Quality

(a) Existing Criteria Pollutant Levels at Nearby Monitoring Stations

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The monitoring station most representative of the Project Site is the Central Los Angeles County Monitoring Station. Criteria pollutants monitored at this station include ozone, NO_2, CO, SO_2, PM_{10} and $PM_{2.5}$. The most recent data available from the SCAQMD for these monitoring stations are from years 2010 to 2014. The pollutant concentration data for these years are summarized in **Table 4.B-2**, *Ambient Air Quality Data*.

Table 4.B-2

Ambient Air Quality Data

Pollutant/Standard	2010	2011	2012	2013	2014
O_3 (1-hour)					
Maximum Concentration (ppm)	0.098	0.087	0.093	0.081	0.113
Days > CAAQS (0.09 ppm)	1	0	0	0	3

[7] *South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, (2015) 6-1.*

[8] *South Coast Air Quality Management District, Multiple Air Toxics Exposure Study, MATES IV Carcinogenic Risk Interactive Map, http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv. Accessed May 2016.*

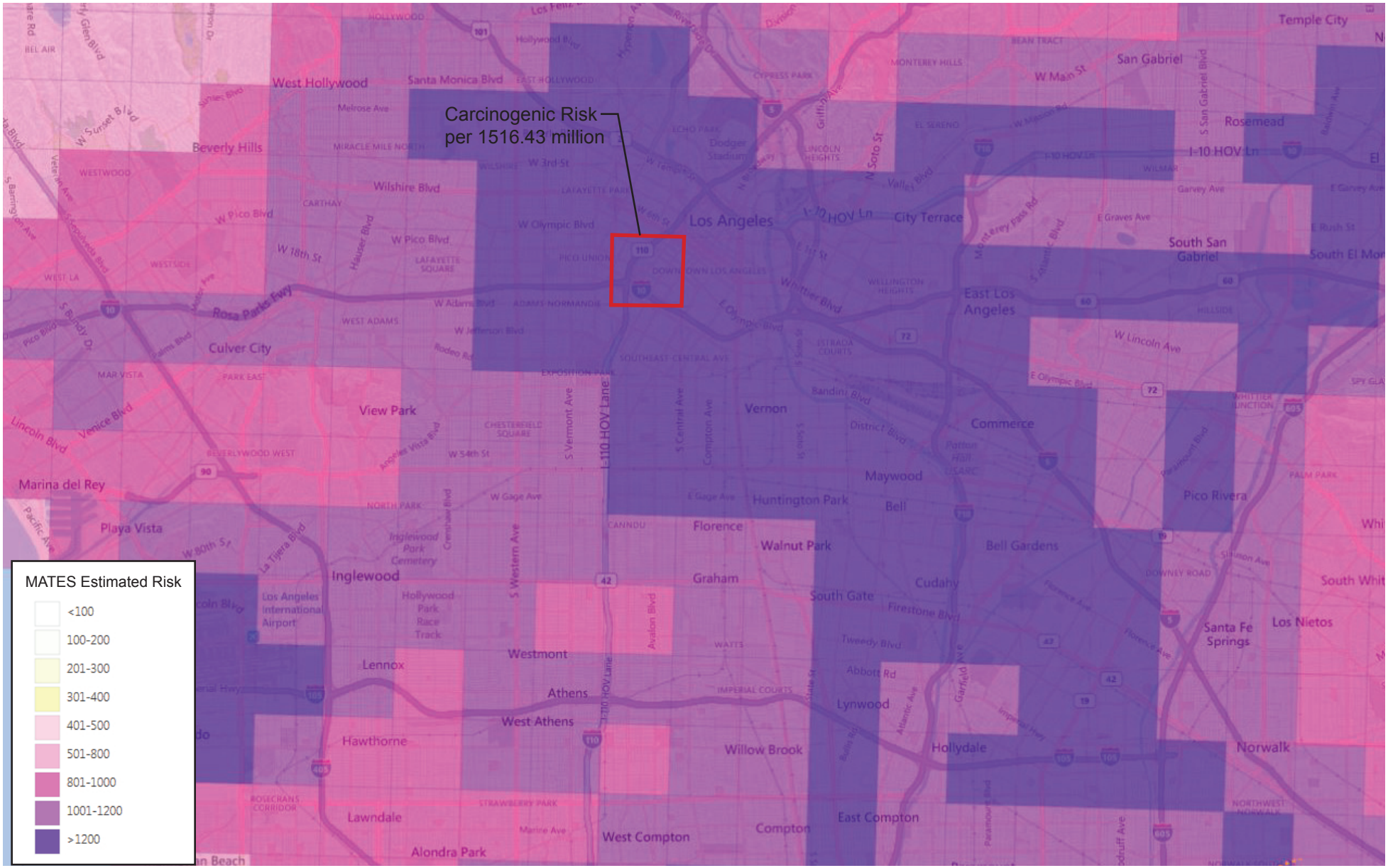
Table 4.B-2 (Continued)

Ambient Air Quality Data

Pollutant/Standard	2010	2011	2012	2013	2014
O_3 (8-hour)					
Maximum Concentration (ppm)	0.080	0.065	0.077	0.069	0.094
4th High 8-hour Concentration (ppm)	0.064	0.060	0.068	0.060	0.072
Days > CAAQS (0.070 ppm)	1	0	2	0	7
Days > NAAQS (0.075 ppm)	1	0	1	0	2
NO_2 (1-hour)					
Maximum Concentration (ppm)	0.089	0.110	0.077	0.090	0.082
98th Percentile Concentration (ppm)	0.071	0.067	0.069	0.063	0.067
NO_2 (Annual)					
Annual Arithmetic Mean (0.030 ppm)	0.025	0.023	0.025	0.022	0.022
CO (1-hour)					
Maximum Concentration (ppm)	3	--	--	--	3
CO (8-hour)					
Maximum Concentration (ppm)	2.3	2.4	1.9	2.0	2.0
SO_2 (1-hour)					
Maximum Concentration (ppm)	0.010	0.020	0.005	0.006	0.005
99th Percentile Concentration (ppm)	--	0.011	0.005	0.005	0.004
SO_2 (24-hour)					
Maximum Concentration (ppm)	0.015	--	--	--	--
PM_{10} (24-hour)					
Maximum Concentration (μg/m³)	42	53	80	57	66
Samples > CAAQS (50 μg/m³)	0	1	4	1	3
Samples > NAAQS (150 μg/m³)	0	0	0	0	0
PM_{10} (Annual Average)					
Annual Arithmetic Mean (20 μg/m³)	27.1	29	30.2	29.5	30.6
$PM_{2.5}$ (24-hour)					
Maximum Concentration (μg/m³)	39.2	49.3	58.7	43.1	59.9
98th Percentile Concentration (μg/m³)	27.1	31.5	31.8	29.0	34.5
Samples > NAAQS (35 μg/m³)	2	4	4	1	6
$PM_{2.5}$ (Annual)					
Annual Arithmetic Mean (12 μg/m³)	11.9	13.00	12.55	11.95	12.36
Lead					
Maximum 30-day average (μg/m³)	0.020	0.012	0.014	0.013	0.013

Notes: ppm = parts per million; μg/m³ = micrograms per cubic meter

Sources: South Coast Air Quality Management District, Historical Data by Year, http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year. Accessed April 2016; California Air Resources Board, Air Quality Data Statistics, http://www.arb.ca.gov/adam/. Accessed April 2016; U.S. Environmental Protection Agency, AirData, http://www.epa.gov/airdata/ad_rep_mon.html. Accessed April 2016.



PCR

Background Inhalation Cancer Risk for Project Site Area

1020 S. Figueroa Street Project

Source: PCR Services Corporation, 2015.

FIGURE

4.B-2

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(b) Existing Site Emissions

The Project Site is located within the Downtown area of the City of Los Angeles, and is currently developed with the nine-story Luxe Hotel and surrounding surface parking lots, which would be demolished and removed from the Project Site. Air pollutant emissions are currently associated with vehicle trips to and from the existing Project Site, on-site combustion of natural gas for heating and cooking, on-site combustion emissions from landscaping equipment, and on-site fugitive emissions from the use of consumer products and architectural coatings. Emissions are estimated using the California Emissions Estimator Model (CalEEMod), which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.[9] Building electricity and natural gas usage rates are adjusted to account for prior Title 24 Building Energy Efficiency Standards.[10] Mobile source emissions are estimated based on CARB's updated version of the on-road vehicle emissions factor (EMFAC) model. The most recent version is EMFAC2014, which "represents ARB's current understanding of motor vehicle travel activities and their associated emission levels."[11] A detailed discussion of the methodology used to estimate the emissions is provided in Appendix C.

The existing Project Site emissions are summarized in **Table 4.B-3**, *Estimated Existing Site Emissions*. As shown, the primary source of emissions is from transportation. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

Table 4.B-3

Estimated Existing Site Emissions (pounds per day) [a]

Source	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Existing Site Emissions						
Area (Consumer Products, Landscaping)	5	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Motor Vehicles	2	1	15	<1	7	2
Total Existing Site Emissions	**7**	**2**	**16**	**<1**	**7**	**2**

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*

Source: PCR, 2016

[9] *See: http://www.caleemod.com.*

[10] *California Air Resources Board, CalEEMod User's Guide, Appendix F, Section 5, July 2013, http://caleemod.com/. Accessed November 2015. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.*

[11] *California Air Resources Board, Mobile Source Emissions Inventory, http://www.arb.ca.gov/msei/categories.htm#emfac2014. Accessed April 2016.*

(c) Sensitive Receptors and Locations

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. Sensitive land uses within 500 feet of the Project Site are shown in **Figure 4.B-3**, *Sensitive Receptor Locations Nearest to the Project Site*, and include the following:

- Multi-Family Residential Dwellings at LA LIVE: The Ritz-Carlton Residences are located across S. Figueroa Street west of the Project Site.
- Multi-Family Residential Dwellings: Several high rise mixed-use residential buildings are located to the north of the Project Site across from Olympic Boulevard. Mid- and high-rise multi-family residential are also located east of the Project Site fronting on S. Flower Street. High-rise residential buildings are located approximately 300 feet to the south of the Project Site across from 11th Street.
- Future Residential Uses: Mixed-use projects that incorporate residential uses include the Fig Central project and the Circa project. These projects are currently under construction and are located approximately 80 feet and 700 feet the south of the Project Site respectively.
- Future Residential Uses: Mixed-use project that incorporates residential uses at the proposed Olympic Tower project. The project is not currently under construction and is located approximately 140 feet north of the Project Site.

All other air quality sensitive receptors are located at greater distances from the Project Site, and would be less impacted by Project emissions. Impacts are quantified for the above sensitive receptors.

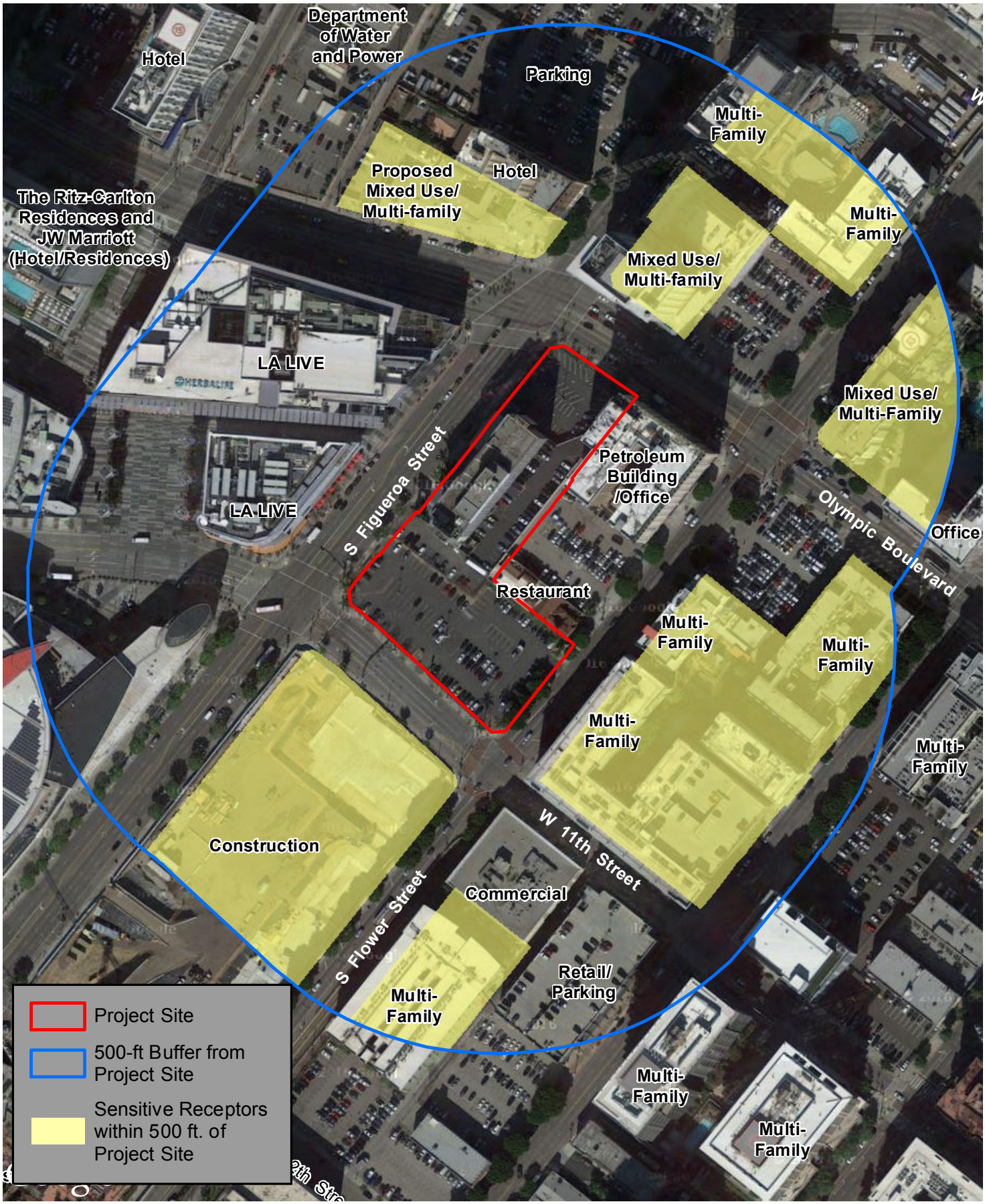
b. Regulatory Framework Summary

A number of statutes, regulations, plans, and policies have been adopted that address air quality issues. The Project is subject to air quality regulations developed and implemented at the federal, state, and local levels. This section provides a summary of pertinent air quality regulations affecting the Project at the federal, state, and local levels.

(1) Federal

The federal Clean Air Act of 1963 was the first federal legislation regarding air pollution control and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990. At the federal level, the USEPA is responsible for implementation of certain portions of the Clean Air Act including mobile source requirements. Other portions of the Clean Air Act, such as stationary source requirements, are implemented by state and local agencies.

The Clean Air Act establishes federal air quality standards, known as National Ambient Air Quality Standards and specifies future dates for achieving compliance. The Clean Air Act also mandates that the state submit and implement a State Implementation Plan for areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. The 1990 amendments to the Clean Air Act identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the Clean Air Act which are most applicable to the Project include Title I (Nonattainment Provisions) and Title II



PCR

N

0 200 400 Feet

Sensitive Receptor Locations Nearest to the Project Site

1020 S. Figueroa Street Project

Source: Google Earth, 2014-04-23 (Aerial); PCR Services Corporation, 2016.

FIGURE

4.B-3

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(Mobile Source Provisions). Title I requirements are implemented for the purpose of attaining NAAQS for the following criteria pollutants: (1) O_3; (2) NO_2; (3) CO; (4) SO_2; (5) PM_{10}; and (6) lead. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. The NAAQS were last amended in September 2006 to include an established methodology for calculating $PM_{2.5}$ as well as revoking the annual PM_{10} threshold. Table 4.B-1 shows the NAAQS currently in effect for each criteria pollutant.

The Project is located within the South Coast Air Basin, which is an area designated as non-attainment because it does not currently meet NAAQS for certain pollutants regulated under the Clean Air Act. The Clean Air Act sets certain deadlines for meeting the NAAQS within the Air Basin including the following: (1) 1-hour O_3 by the year 2010; (2) 8-hour O_3 by the year 2024;[12] (3) PM_{10} by the year 2006; and (4) $PM_{2.5}$ by Title II of the federal Clean Air Act pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially, and the specification requirements for cleaner burning gasoline are more stringent.

(2) State

(a) California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards by the earliest practical date. The CAAQS apply to the same criteria pollutants as the federal Clean Air Act but also include State-identified criteria pollutants, which include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. The California Air Resources Board has primary responsibility for ensuring the implementation of the California Clean Air Act,[13] responding to the federal Clean Air Act planning requirements applicable to the state, and regulating emissions from motor vehicles and consumer products within the state. Table 4.B-1 shows the CAAQS currently in effect for each of the criteria pollutants as well as the other pollutants recognized by the state. As shown in Table 4.B-1, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants.

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. **Table 4.B-4**, *South Coast Air Basin Attainment Status (Los Angeles County)*, provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to the state standards. The Air Basin is designated as attainment for the California standards for sulfates and unclassified for hydrogen sulfide and visibility-reducing particles. Because vinyl chloride is a carcinogenic toxic air contaminant, CARB does not classify attainment status for this pollutant.

[12] *The 8-hour ozone attainment deadline for the 1997 standard of 80 parts per billion is 2024. The 8-hour ozone attainment deadline for the 2008 standard of 75 parts per billion is 2032.*

[13] *Chapter 1568 of the Statutes of 1988.*

Table 4.B-4

South Coast Air Basin Attainment Status (Los Angeles County)

Pollutant	National Standards	California Standards
O_3 (1-hour standard)	N/A [a]	Non-attainment – Extreme
O_3 (8-hour standard)	Non-attainment – Extreme	Non-attainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
PM_{10}	Attainment	Non-attainment
$PM_{2.5}$	Non-attainment	Non-attainment
Lead	Non-attainment	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride	N/A	N/A [b]

N/A = not applicable

[a] *The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.*

[b] *In 1990 the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.*

Source: United States Environmental Protection Agency, The Green Book Non-attainment Areas for Criteria Pollutants, http://www.epa.gov/oaqps001/greenbk/index.html. Accessed April 2016; California Air Resources Board, Area Designations Maps/State and National, http://www.arb.ca.gov/desig/adm/adm.htm. Accessed April 2016.

(b) California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California. The requirements were amended in December 2010 and apply to nearly all diesel fueled trucks and busses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet, those with a gross vehicle weight rating greater than 26,000 pounds, there are two methods to comply with the requirements. The first way is for the fleet owner to retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards, or better. This is phased over 8 years, starting in 2015 and would be fully implemented by 2023, meaning that all trucks operating in the State subject to this option would meet or exceed the 2010 engine emission standards for NO_X and PM by 2023. The second option, if chosen, requires fleet owners, starting in 2012, to retrofit a portion of their fleet with diesel particulate filters achieving at least 85 percent removal efficiency, so that by January 1, 2016 their entire fleet is equipped with diesel particulate filters. However, diesel particulate filters do not

typically lower NO_X emissions. Thus, fleet owners choosing the second option must still comply with the 2010 engine emission standards for their trucks and busses by 2020.

In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with the largest fleets to begin compliance by January 1, 2014. Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (e.g., engine retrofits) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs or retrofits be fully implemented by 2023 in all equipment in large and medium fleets and across 100 percent of small fleets by 2028.

(3) Regional

(a) South Coast Air Quality Management District

The SCAQMD has jurisdiction over air quality planning for all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Air Basin is a subregion within SCAQMD jurisdiction. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.

(i) Air Quality Management Plan

The SCAQMD has adopted a series of AQMPs to meet the CAAQS and NAAQS. In December 2012, the SCAQMD adopted the *2012 Air Quality Management Plan*, which incorporates the latest scientific and technological information and planning assumptions, including growth projections.[14] On April 7, 2016, the Southern California Association of Government's (SCAG) adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*, and updated emission inventory methodologies for various source categories.[15] The 2012 AQMP is the most recent plan to achieve air quality attainment within the region and builds upon other agencies' plans to achieve federal standards for air quality in the Air Basin. It incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. The 2012 AQMP builds upon improvements in previous plans, and includes new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches. In addition, it highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies,

[14] *South Coast Air Quality Management District, 2012 Air Quality Management Plan, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan. Accessed April 2016.*

[15] *Southern California Association of Governments, 2016-2040 Final RTP/SCS, http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. Accessed April 2016.*

especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act.

The key undertaking of the 2012 AQMP is to bring the Air Basin into attainment with the NAAQS for the 24-hour $PM_{2.5}$ standard by 2014. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 8-hour O_3 standard deadline with new measures designed to reduce reliance on the federal Clean Air Act Section 182(e)(5) long-term measures for NO_X and VOC reductions. The SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2012 AQMP consist of four components: (1) Air Basin-wide and Episodic Short-term $PM_{2.5}$ Measures; (2) Contingency Measures; (3) 8-hour O_3 Implementation Measures; and (4) Transportation and Control Measures provided by the SCAG. The 2012 AQMP includes eight short-term $PM_{2.5}$ control measures, 16 stationary source 8-hour O_3 measures, 10 early action measures for mobile sources and seven early action measures proposed to accelerate near-zero and zero emission technologies for goods movement related sources, and five on-road and five off-road mobile source control measures. In general, the SCAQMD's control strategy for stationary and mobile sources is based on the following approaches: (1) available cleaner technologies; (2) best management practices; (3) incentive programs; (4) development and implementation of zero- near-zero technologies and vehicles and control methods; and (5) emission reductions from mobile sources.

The SCAQMD released the Draft 2016 AQMP on June 30, 2016 for public review and comments. The public review period ended August 4, 2016 and the public hearing is scheduled for December 2, 2016 at which time the SCAQMD Governing Board will consider approving the AQMP. Key elements of the Draft 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, state, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero and near-zero-emissions technologies; and taking credit from co-benefits from greenhouse gas, energy, transportation and other planning efforts. The strategies included in the Draft 2016 AQMP are intended to demonstrate attainment of the National Ambient Air Quality Standards (NAAQS) for the federal non-attainment pollutants (ozone and PM2.5).

(ii) SCAQMD Air Quality Guidance Documents

The *CEQA Air Quality Handbook* was published by the SCAQMD in November 1993 to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a Project) of the *CEQA Air Quality Handbook*, because the tables were derived using an obsolete version of CARB's mobile source emission factor inventory, and the trip generation characteristics of the land uses identified in these screening tables were based on the fifth edition of the Institute of Transportation Engineer's *Trip Generation Manual*, instead of the most current edition. Additionally, the lead agency should avoid using the on-road mobile source emission factors in Table A9-5-J1 through A9-5-L (EMFAC7EP Emission Factors for Passenger Vehicles and Trucks, Emission Factors for Estimating Material Hauling, and Emission Factors for Oxides of Sulfur and Lead). The SCAQMD

instead recommends using other approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod) software, initially released in 2011 and updated in 2013.[16]

The SCAQMD has published a guidance document called the *Localized Significance Threshold Methodology* for CEQA Evaluations that is intended to provide guidance in evaluating localized effects from mass emissions during construction.[17] The SCAQMD adopted additional guidance regarding $PM_{2.5}$ in a document called *Final Methodology to Calculate Particulate Matter $(PM)_{2.5}$ and $PM_{2.5}$ Significance Thresholds*.[18] This latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Localized Significance Threshold Methodology*.

(iii) SCAQMD Rules and Regulations

Several SCAQMD rules adopted to implement portions of the AQMP may apply to the proposed Project. For example, SCAQMD Rule 403 requires implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. The Project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which may apply to the Project:

- **Rule 402 – Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 – Fugitive Dust:** This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM_{10} emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for specific sources. The following is a list of rules which may apply to the Project:

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[16] *South Coast Air Quality Management District, CEQA Air Quality Handbook (1993), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). Accessed April 2016.*

[17] *South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (2008).*

[18] *South Coast Air Quality Management District, Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds, (2006).*

- **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 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines:** This rule specifies NO_X emissions limits, monitoring, source testing, and recordkeeping requirements for stationary gas turbines 0.3 megawatt (MW) and larger.
- **Rule 1138 – Control of Emissions from Restaurant Operations:** This rule specifies emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.
- **Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters:** This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- **Rule 1186 – PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations:** This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM_{10} emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also **Rule 403).**
- **Rule 1403 –** Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Regulation XIII – New Source Review (NSR): Regulation XIII sets requirements for preconstruction review required under both federal and state statutes for new and modified sources located in areas that do not meet the Clean Air Act standards ("non-attainment" areas). NSR applies to both individual permits and entire facilities. Any permit that has a net increase in emissions is required to apply BACT. Facilities with a net increase in emissions are required to offset the emission increase by use of Emission Reduction Credits (ERCs). The regulation provides for the application, eligibility, registration, use and transfer of ERCs. For low emitting facilities, the SCAQMD maintains an internal bank that can be used to provide the required offsets. In addition, certain facilities are subject to provisions that require public notice and modeling analysis to determine the downwind impact prior to permit issuance.

(b) Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization for the majority of the Southern California region and is the largest Metropolitan Planning Organization in the nation. With regard to air quality planning, SCAG adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* in April 2016, which addresses regional development and growth forecasts and forms the basis for the land use and transportation control portions of the AQMP. The growth forecasts are utilized in the preparation of the air quality forecasts and consistency analysis included in the

AQMP. The Regional Transportation Plan/Sustainable Communities Strategy and AQMP are based on projections originating within local jurisdictions.

SCAG's Sustainable Communities Strategy provides specific strategies for successful implementation. These strategies include supporting projects that encourage a diverse job opportunities for a variety of skills and education, recreation and culture and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles.

In 2008, SCAG released the Regional Comprehensive Plan which addresses regional issues such as housing, traffic/transportation, water, and air quality. The Regional Comprehensive Plan serves as an advisory document to local agencies in the Southern California region for their information and voluntary use for preparing local plans and handling local issues of regional significance. The Regional Comprehensive Plan presents a vision of how southern California can balance air quality with growth and development by including goals such as: reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and stated ambient air quality standards as soon as practicable; reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas; and to minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to TACs, particulates (PM_{10} and $PM_{2.5}$) and CO.

(4) Local

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through its land use decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City's General Plan Air Quality Element includes Citywide goals, objectives, and policies related to air quality resources. A number of these goals, objectives, and policies are relevant to the proposed Project and are related to traffic mobility, minimizing particulate emissions from construction activities, discouraging single-occupancy vehicle trips, managing traffic congestion during peak hours, and increasing energy efficiency in City facilities and private developments.

The City of Los Angeles is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits and monitors and enforces implementation of such mitigation measures.

3. ENVIRONMENTAL IMPACTS

a. Methodology

The evaluation of potential impacts to regional and local air quality that may result from the construction and long-term operations of the Project is conducted as follows. Additional details are provided in the Air Quality Technical Report in Appendix C.

(1) Consistency with Air Quality Plan

The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., ozone and PM2.5). The SCAQMD's 2012 Air Quality Management Plan contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. Projects that are consistent with the assumptions used in the Air Quality Management Plan do not interfere with attainment because the growth is included in the projections utilized in the formulation of the Air Quality Management Plan. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the Air Quality Management Plan would not jeopardize attainment of the air quality levels identified in the Air Quality Management Plan, even if they exceed the SCAQMD's numeric indicators.

(2) Construction Impacts

Construction of the Project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators and forklifts, and through vehicle trips generated from workers and haul trucks traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily NO_X, would result from the use of construction equipment such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions are estimated using the CalEEMod (Version 2013.2.2) software, an emissions inventory software program recommended by the SCAQMD. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. Construction haul and vendor truck emissions during grading, concrete pour and building construction were evaluated using regional heavy-duty truck emission factors from EMFAC2014. Daily truck trips and default trip length data were used to assess roadway emissions from truck exhaust, as well as typical CARB idling times of local emissions on-site. Detailed calculations are provided in Appendix C of this Draft EIR. It should be noted that the maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of Project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators.

The localized effects from the on-site portion of the emissions are evaluated at nearby sensitive receptor locations potentially impacted by the Project according to the SCAQMD's Localized Significance Threshold Methodology (June 2003, revised July 2008). The localized significance thresholds are only applicable to

NO_X, CO, PM_{10}, and $PM_{2.5}$. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards without project-specific dispersion modeling. The localized analysis is based on this SCAQMD screening criteria.

(3) Operational Impacts

Operation of the Project has the potential to generate criteria pollutant emissions through vehicle trips traveling to and from the Project Site. In addition, emissions would result from area sources on-site such as natural gas combustion, landscaping equipment, and use of consumer products. Stationary sources of emissions may be generated by on-site charbroiling associated with food preparation activities at the proposed restaurant land uses if the restaurant were to install charbroiling equipment. Operational impacts were assessed for the interim year (2020) when Phase 1 would become operational concurrent with Phase 2 construction, and for the full Project buildout year (2023) with concurrent operation of both Phase 1 and Phase 2.

The operational emissions are estimated using the CalEEMod software. CalEEMod was used to forecast the daily regional emissions from area and stationary sources that would occur during long-term Project operations. In calculating mobile-source emissions, the trip length values were based on the distances provided in CalEEMod. The trip distances were applied to the maximum daily trip estimates, based on the trip rates in the traffic study.[19] The trips take into account trip reductions from Project characteristics including internal capture from co-locating commercial and residential uses on the Project Site and transit and pedestrian trips. Mobile emissions were estimated separately using the resulting CalEEMod-calculated annual vehicle miles traveled (VMT) and regional emission factors from EMFAC2014 because CalEEMod relies on the older EMFAC2011. Details regarding trip reduction are provided in Appendix C.

Area source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product usage (including paints) rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the California Energy Commission (CEC) *California Commercial End Use Survey* (CEUS) data set, which provides energy demand by building type and climate zone.[20] However, since the data from the CEUS is from 2002, correction factors are incorporated into CalEEMod to account for the appropriate version of the Title 24 Building Energy Efficiency Standards in effect.

Stationary-source emissions are estimated separately outside of the CalEEMod software. Stationary sources may include charbroiling of meat that may occur on-site during food preparation activities in the restaurant kitchen. Stationary source emissions are calculated based on emissions factors available from the SCAQMD. In order to provide a conservative analysis, it was assumed that the restaurant would charbroil meat with relatively high emission factors (i.e., hamburger meat and chicken). The quantity of meat charbroiled in the restaurant is based on survey data from the SCAQMD. The estimated emissions account for reductions from compliance with emissions control requirements consistent with SCAQMD Rule 1138.

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[19] *Gibson Transportation Consulting, Inc., Traffic Study for the 1020 S. Figueroa Street Project, Los Angeles, California, (2016).*

[20] *California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/Chart.aspx. Accessed April 2016.*

Operational air quality impacts are assessed based on the incremental increase in emissions compared to baseline conditions. Under CEQA, the baseline environmental setting for an EIR is established at or around the time that the Notice of Preparation for the EIR is published. As discussed previously, the Project Site is currently developed with the nine-story Luxe Hotel and surrounding surface parking lots. Therefore, the net operational emissions generated by the proposed Project are equal to the Project's emissions minus the existing Project Site emissions. The maximum daily net emissions from operation of the Project are compared to the SCAQMD daily regional numeric indicators. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

The localized effects from the on-site portion of daily emissions from Project operation are evaluated at nearby sensitive receptor locations potentially impacted by the Project according to the SCAQMD's Localized Significance Threshold Methodology (June 2003, revised July 2008). The localized impacts from operation of the Project are assessed similar to construction, as discussed previously.

Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. The potential for the Project to cause or contribute to the formation of off-site CO hotspots are evaluated based on prior dispersion modeling of the four busiest intersections in the Air Basin that has been conducted by the SCAQMD for its CO Attainment Demonstration Plan in the AQMP. The analysis compares the intersections with the greatest peak-hour traffic volumes that would be impacted by the Project to the intersections modeled by the SCAQMD. Project-impacted intersections with peak-hour traffic volumes that are lower than the intersections modeled by the SCAQMD, in conjunction with lower background CO levels, would result in lower overall CO concentrations compared to the SCAQMD modeled values in its AQMP.

(4) Toxic Air Contaminant Impacts (Construction and Operations)

The greatest potential for TAC emissions during construction would be related to diesel particulate matter emissions associated with heavy-duty equipment during demolition, excavation and grading activities. Construction activities associated with the Project would be sporadic, transitory, and short term in nature. The OEHHA is responsible for developing and revising guidelines for performing health risk assessments (HRAs) under the State's the Air Toxics Hot Spots Program Risk Assessment (AB 2588) regulation. In March 2015, OEHHA adopted revised guidelines that update the previous guidance by incorporating advances in risk assessment with consideration of infants and children using Age Sensitivity Factors (ASF). The construction HRA was performed in accordance with the revised OEHHA *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA Guidance).[21] The analysis incorporates the estimated construction emissions, as previously discussed, and dispersion modeling using the USEPA AERMOD model with meteorological data from the closest SCAQMD monitoring station.

During long-term operations, TACs could be emitted as part of periodic maintenance operations, cleaning, painting, etc., and from periodic visits from delivery trucks and service vehicles. However, these uses are expected to be occasional and result in minimal exposure to off-site sensitive receptors. As the project consists of residential, hotel, and commercial/restaurant uses, the project would not include sources of substantive TAC emissions identified by the SCAQMD or CARB siting recommendations. Thus a qualitative analysis is appropriate.

[21] *California Environmental Protection Agency, Office of Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, (2015).*

b. Thresholds of Significance

Appendix G of the State *CEQA Guidelines* states that "Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determination: Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan;

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in 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; or

e. Create objectionable odors affecting a substantial number of people."

As discussed in the Initial Study, which is contained in Appendix A of the Draft EIR, and in Chapter 6.0, Subsection F, *Effects Found Not to be Significant*, of this Draft EIR the Project would have a less than significant impact with regard to odors (item "e") above. As such, no further analysis of this topic is necessary.

The *L.A. CEQA Thresholds Guide* incorporates the screening questions, and pursuant to the Appendix G guideline, defers to threshold guidance established by the SCAQMD, in particular to the CEQA Air Quality Handbook. Further, the *L.A. CEQA Thresholds Guide* provides guidance in the application of the SCAQMD guidance.

The SCAQMD is in the process of developing an *Air Quality Analysis Guidance Handbook* to replace the *CEQA Air Quality Handbook*. In the interim, supplemental guidance has been adopted by the SCAQMD. The potential air quality impacts of the Project are, therefore, evaluated according to numeric indicators developed by the SCAQMD in the *CEQA Air Quality Handbook* and supplemental guidance from the SCAQMD.[22]

(1) Construction Emissions

The SCAQMD has established numerical emission indicators of significance for construction. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health.[23] Given that construction impacts are temporary and limited to the construction phase, the SCAQMD has established numeric indicators of significance specific to construction activity. Based on the

[22] *While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial land use projects such as the Project. As a result, lead emissions are not further evaluated in this Draft EIR.*

[23] *South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.*

indicators in the SCAQMD *CEQA Air Quality Handbook,* the Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

AQ-1: Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily emissions thresholds:[24]

- 75 pounds a day for VOC;
- 100 pounds per day for NO_X;
- 550 pounds per day for CO;
- 150 pounds per day for SO_2;
- 150 pounds per day for PM_{10}; or
- 55 pounds per day for $PM_{2.5}$.

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards or ambient concentration limits. Impacts would be considered significant if the following would occur:

AQ-2: Maximum daily localized emissions of NO_X and/or CO during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for NO_2 and/or CO.[25]

AQ-3: Maximum daily localized emissions of PM_{10} and/or $PM_{2.5}$ during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site to exceed 10.4 $\mu g/m^3$ over 24 hours (SCAQMD Rule 403 control requirement).

As discussed previously under subsection 3.a., the SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling. This analysis uses the screening criteria to evaluate impacts from localized emissions.

(2) Operational Emissions

The SCAQMD has established numerical emission indicators of significance for operations. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to project

[24] *South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, (March 2011), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed April 2016.*

[25] *South Coast Air Quality Management District, Localized Significance Thresholds, (2003, revised 2008), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed April 2016.*

public health.[26] The SCAQMD has established numeric indicators of significance in part based on Section 182(e) of the Clean Air Act which identifies 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone.[27] As shown in Table 4.B-4, the Air Basin is designated as extreme non-attainment for ozone. The SCAQMD converted this significance level to pounds per day for ozone precursor emissions (10 tons per year × 2,000 pounds per ton ÷ 365 days per year = 55 pounds per day). The numeric indicators for other pollutants are also based on federal stationary source significance levels. Based on the indicators in the SCAQMD *CEQA Air Quality Handbook*, the Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

AQ-4: Operational emissions exceed any of the following SCAQMD prescribed daily regional numeric indicators:[28]

- 55 pounds a day for VOC;
- 55 pounds per day for NO_X;
- 550 pounds per day for CO;
- 150 pounds per day for SO_X;
- 150 pounds per day for PM_{10}; or
- 55 pounds per day for $PM_{2.5}$.

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following would occur:

AQ-5: Maximum daily localized emissions of NO_X and/or CO during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for NO_2 and/or CO.[29]

AQ-6: Maximum daily localized emissions of PM_{10} and/or $PM_{2.5}$ during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site to exceed 2.5 μg/m^3 over 24 hours (SCAQMD Rule 1303 allowable change in concentration).

As discussed previously under subsection 3.a., the SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance

[26] *South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.*

[27] *South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-1.*

[28] *South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, (March 2011), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed April 2016. The L.A. CEQA Thresholds Guide also includes a threshold of 10 tons per year of VOCs; however, this is equivalent to the SCAQMD daily threshold of 55 pounds per day.*

[29] *South Coast Air Quality Management District, Localized Significance Thresholds, (2003, revised 2008), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed April 2016.*

thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling. This analysis uses the screening criteria to evaluate impacts from localized emissions.

Impacts would be considered significant if the following would occur:

AQ-7: The following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:

- The Project would cause or contribute to an exceedance of the CAAQS one-hour or eight-hour CO standards of 20 or 9.0 parts per million (ppm), respectively;

(3) Toxic Air Contaminants

Based on the City of Los Angeles *CEQA Thresholds Guide* and criteria set forth by the SCAQMD, the project would expose sensitive receptors to substantial concentrations of toxic air contaminants if any of the following would occur:[30]

AQ-8: The Project emits carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic hazard index of 1.0.

As discussed previously under subsection 3.a., construction impacts from TACs are evaluated qualitatively because of the sporadic and temporary nature of construction emissions. The Project would have limited sources of TACs associated with operations. Therefore, a qualitative assessment will be used to determine whether the Project would result in a significant impact by exceeding the above-referenced standard.

(4) Consistency with Air Quality Plans and Policies

The Project would have a significant impact if it would:

AQ-9: Substantially conflict with or obstruct implementation of relevant air quality policies in the General Plan or other adopted regional and local plans adopted for reducing air quality impacts.

c. Project Characteristics and Project Design Features

(1) Land Use Characteristics

The Project would represent an urban infill development, since it would be undertaken on a currently developed site, and would be located near existing off-site commercial and retail destinations and in close proximity to existing public transit stops, which would result in reduced vehicle trips, VMT, and associated transportation emissions compared to the statewide and South Coast Air Basin average.

[30] *South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project) and Chapter 10 (Assessing Toxic Air Pollutants), (1993); SCAQMD Air Quality Significance Thresholds, (March 2011), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed September 2015.*

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance for mitigating or reducing emissions from land use development projects. In September 2010, CAPCOA released a guidance document titled *Quantifying Greenhouse Gas Mitigation Measures* which provides emission reduction values for recommended reduction measures.[31] The CAPCOA guidance document was utilized in this analysis for quantifying reductions due to land use characteristics and Project Design Features in CalEEMod.

The land use characteristics listed below are consistent with the CAPCOA guidance document, and would reduce vehicle trips to and from the Project Site compared to the statewide and South Coast Air Basin average. They would therefore result in a corresponding reduction in VMT and associated air pollutant emissions.

- **Increased Density:** Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduces emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies such as enhanced transit services. This measure corresponds to CAPCOA guidance measure LUT-1.[32] According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill[33] location and is mixed-use; therefore, this measure applies to the Project. The Project would increase the Project Site density to approximately 241 dwelling units per acre and 206 jobs per acre (refer to Section 4.I, *Population, Housing, and Employment*, of this Draft EIR, which provides employment data used to estimate the number of jobs per acre).
- **Location Efficiency:** Location efficiency describes the location of a project relative to the type of urban landscape such as an urban area, compact infill, or suburban center. In general, compared to the statewide average, a project could realize VMT reductions up to 65 percent in an urban area, up to 30 percent in a compact infill area, or up to 10 percent in a suburban center for land use/location strategies.[34] This measure corresponds to CAPCOA guidance measure LUT-2.[35] According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill

[31] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010).*

[32] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155-158.*

[33] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 59-60. The project area meets the characteristics for an urban setting with respect to typical building heights of 6 stories or much higher, grid street pattern, minimal setbacks, constrained parking, high parking prices, high quality rail service (i.e., Metro Blue, Expo, Red and Purple Lines), location relative to regional cores (5 miles or less) and jobs/housing balance (the Central City Community Plan Area has an existing jobs/housing ratio of approximately 7.2).*

[34] *CalEEMod, by default, assumes that trip distances in the South Coast Air Basin are slightly longer than the statewide average. This is due to the fact that commute patterns in the South Coast Air Basin involve a substantial portion of the population commuting relatively far distances, which is documented in the Southern California Association of Governments 2016 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS). The RTP/SCS shows that, even under future Plan conditions, upwards of 50 percent of all work trips are 10 miles or longer (SCAG, Performance Measures Appendix, p. 7, 2012). The RTP/SCS does not specify the current percentage of work trips greater than 10 miles in the region, but it can be assumed that the percentage is currently greater than 50 percent since the goal of the RTP/SCS is to reduce overall VMT in the region. It is thus reasonable to assume that the trip distances in South Coast Air Basin are analogous to the statewide average given that the default model trip distances in the South Coast Air Basin are slightly longer but still generally similar to the statewide average. Therefore, projects could achieve similar levels of VMT reduction (65 percent in an urban area, 30 percent in a compact infill area, or 10 percent for a suburban center) compared to the South Coast Air Basin average.*

[35] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 159-161.*

location and is mixed-use; therefore, this measure applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the geographic location of the project within the region. The Project Site represents an urban infill location within the Downtown area of the City of Los Angeles. The Project Site is served by existing public transportation located within a quarter-mile. The Project Site is within an active urban center with many existing off-site commercial, entertainment, hotel, and residential buildings. The location efficiency of the Project Site would result in synergistic benefits that would reduce vehicle trips and VMT compared to the statewide and South Coast Air Basin average and would result in corresponding reductions in transportation-related emissions.

- **Increased Land Use Diversity and Mixed-Uses:** Locating different types of land uses near one another can decrease VMT since trips between land use types are shorter and could be accommodated by alternative modes of transportation, such as public transit, bicycles, and walking. This measure corresponds to CAPCOA guidance measure LUT-3.[36] According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings (also potentially for rural master-planned communities) for mixed-use projects. The Project is located in an urban infill location and is mixed-use; therefore, this measure applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the percentage of each land use type in the project. The Project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The Project would include on-site retail and residential land uses and would be located within a quarter-mile of off-site commercial and residential uses, as well as major transit facilities. The increases in land use diversity and mix of uses on the Project Site, as well as proximity to transit, would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.
- **Increased Destination Accessibility:** This measure corresponds to CAPCOA guidance measure LUT-4.[37] According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location and is mixed-use, including residential and retail uses; therefore, this measure applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the distance to downtown or major job center. The Project would be located in an area that offers access to multiple other nearby destinations, including restaurant, bar, office, retail, entertainment, movie theater, and residential uses. The Project Site is also located near other job centers in the region and within the Downtown area itself. The access to multiple destinations in close proximity to the Project Site would reduce vehicle trips and VMT compared to the statewide and South Coast Air Basin average, encourage walking and non-automotive forms of transportation, and would result in corresponding reductions in transportation-related emissions.
- **Increased Transit Accessibility:** Locating a project with high density near transit facilities encourages the use of transit by people traveling to or from a project site. This measure corresponds to CAPCOA guidance measure LUT-5.[38] According to CAPCOA, the reduction in VMT from this

[36] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162-166.*

[37] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 167-170.*

[38] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171-175.*

measure applies to urban and suburban settings (also potentially for rural settings adjacent to a commuter rail station with convenient access to a major employment center) for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location and is mixed-use; therefore, this measure applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the distance to transit stations near the Project. The Project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 4, 28, 81, 442, 460, 701, 721, 728, 910/950, Commuter Express 422/423/438/448/534, DASH F) and the Metro Blue and Expo Lines, and nearby access to the Metro Red and Purple Lines within one-half mile. The Project would provide access to on-site uses from existing pedestrian pathways. The Project would also provide parking for bicycles on-site to encourage utilization of alternative modes of transportation. The increased transit accessibility would reduce vehicle trips and VMT versus the statewide and South Coast Air Basin average, encourage walking and non-automotive forms of transportation, and would result in corresponding reductions in transportation-related emissions.

- **Improve Design of Development:** Improved street network characteristics within a neighborhood enhances walkability and connectivity. Characteristics include street accessibility usually measured in terms of number of intersections (e.g., four-way intersections) per square mile. This measure corresponds to CAPCOA guidance measure LUT-9.[39] According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location and is mixed-use; therefore, this measure applies to the Project. The Project would be located in a highly street-accessible area with approximately 76 four-way intersections within a one mile area of the Project Site, which exceeds the standard intersection density assumed in baseline VMT modeling. The increased intersection density would reduce vehicle trips and VMT versus the statewide and South Coast Air Basin average, encourage walking and non-automotive forms of transportation, and would result in corresponding reductions in transportation-related emissions.

- **Provide Pedestrian Network Improvements:** Providing pedestrian access that minimizes barriers and links a project site with existing or planned external streets encourages people to walk instead of drive. This measure corresponds to CAPCOA guidance measure SDT-1.[40] According to CAPCOA, the reduction in VMT from this measure applies to urban, suburban, and rural settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location and is mixed-use; therefore, this measure applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include pedestrian access connectivity within the project and to/from off-site destinations. As discussed in Section 4.J, *Transportation and Traffic*, the walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. These attributes are quantified by WalkScore.com and assigned a score out of 100 points. With the various commercial businesses and entertainment facilities adjacent to residential neighborhoods of the Downtown area and proximity to public transit, the walkability of the Downtown area is approximately 90 points;[41] this compares to

[39] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 182-185.*

[40] *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 186-189.*

[41] *WalkScore.com(www.walkscore.com) rates the Project Site (1020 S. Figueroa Street) with a score of 90 of 100 possible points(scores accessed on March 16, 2016 for the Downtown Los Angeles district). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.*

the citywide score of 64 points. As discussed in Chapter 2.0, *Project Description*, the Project would improve the street-level pedestrian environment and connectivity within the LA LIVE, Staples Center, the Los Angeles Convention Center and the surrounding streetscape, with the creation of new pedestrian scale features such as a public plaza along S. Figueroa with street level retail/restaurant uses, street trees and landscaping, public art, and signage and lighting. The Project would promote pedestrian activities and connections to interior uses. Pedestrian access to the Hotel Tower and lobby would be from a hotel motor-court on 11th Street and from the hotel lobby fronting S. Figueroa Street. Pedestrian access to the two stories of commercial and restaurant frontage along the periphery of the Podium fronting 11th Street, S. Figueroa Street, S. Flower Street, and Olympic Boulevard would be directly from those streets at the ground level or via elevators, stairs or escalators. Pedestrian access to the lobby for Residential Tower 1 at the corner of 11th Street and S. Flower Street would be from S. Flower Street. Pedestrian access to the lobby of Residential Tower 2 at the corner of S. Figueroa Street and Olympic Boulevard would be from Olympic Boulevard. Pedestrian access to the residential units in the Podium at the street level would be via either the Residential Tower 1 or Residential Tower 2 residential lobbies. In summary, the Project would provide an internal pedestrian network for Project visitors and residents that links to the existing off-site pedestrian network including existing off-site sidewalks, and would therefore result in a small reduction in VMT and associated transportation-related emissions.

(2) Project Design Features

The Project would achieve several objectives of the City of Los Angeles General Plan Framework Element, Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy, and South Coast Air Quality Management District Air Quality Management Plan for establishing a regional land use pattern that promotes sustainability. The Project would support pedestrian activity in the Downtown area, and contribute to a land use pattern that addresses housing needs and reduces vehicle trips and air pollution by locating residential uses within an area that has public transit (with access to existing regional bus and rail service), and employment opportunities, restaurants and entertainment all within walking distance.

The Project would be designed to incorporate green building techniques and other sustainability features. Key Project Design Features that would contribute to energy efficiencies include the use of glass/window areas for ventilation and daylight accessibility, low albedo (high reflectivity) color paving to reduce heat island effect and drought tolerant landscaping. Other building features would include such items as stormwater retention; installation of heating, ventilation, and air conditioning (HVAC) systems that utilize ozone-friendly refrigerants; use of materials and finishes that emit low quantities of VOCs; use of high efficiency fixtures and appliances, water conservation features; and recycling of solid wastes. The Project would also provide bicycle parking and preferred parking for fuel efficient or electric vehicle. The Project would also be designed to comply with the City of Los Angeles Green Building Ordinance. The following Project Design Features would reduce air pollutant emissions as well as greenhouse gas emissions:

PDF-AQ-1: **Green Building Measures:** The Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the equivalent of the USGBC LEED Silver Certification level. Green building measures would include, but are not limited to the following:

- The Project would implement a construction waste management plan to divert all mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029.
- The Project would be designed to optimize energy performance and reduce building energy cost by 14 percent for new construction compared to the Title 24 Building Energy Efficiency Standards as specified in the LEED 2009 Energy and Atmosphere credit 1 (EAc1).
- The Project would be designed to optimize energy performance and reduce building energy cost by installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent.
- The Project would include double-paned windows to keep heat out during summer months and keep heat inside during winter months.
- The Project would include lighting controls with occupancy sensors to take advantage of available natural light.
- The Project would reduce outdoor potable water use by a minimum of 50 percent compared to baseline water consumption. Reductions would be achieved through drought-tolerant/California native plant species selection, artificial turf, irrigation system efficiency, alternative water supplies (e.g., rainwater harvesting for use in landscaping), and/or smart irrigation systems (e.g., weather-based controls).
- The Project would reduce indoor potable water use by a minimum of 40 percent compared to baseline water consumption by installing water fixtures that exceed applicable standards.
- The Project would provide on-site recycling areas, consistent with City of Los Angeles strategies and ordinances, with the goal of achieving 70 percent waste diversion by 2020, and 90 percent by 2025.
- To encourage carpooling and the use of electric vehicles by Project residents and visitors, the Applicant shall designate a minimum of 8 percent of on-site parking for carpool and/or alternative-fueled vehicles, and the Project design will provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into 10 percent of the parking spaces.

PDF-AQ-2: **Construction Measures:** The Project shall utilize off-road diesel-powered construction equipment that meets or exceeds the CARB and USEPA Tier 4 off-road emissions standards for equipment rated at 50 hp or greater during Project construction. Equipment, such as tower cranes, welders and pumps shall be electric or alternative fueled (i.e., non-diesel). To the extent possible, pole power will be made available for use with electric tools, equipment, lighting, etc. Alternative-fueled generators shall be used when commercial models that have the power supply requirements to meet the construction needs of the Project are readily available from local suppliers/vendors. These requirements shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit's certified tier specification or model year specification and CARB or SCAQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment.

PDF-AQ-3: **Control of VOCs:** The Project shall utilize low-emitting materials pursuant to the requirements of the LEED Low-Emitting Material Credit or equivalent. Indoor coatings shall be limited to 50 grams per liter of VOCs or less.

Regulatory Compliance Measures

In addition to this Project Design Feature, the Project would comply with requirements of other agencies such as the SCAQMD. These measures include the following:

- **Demolition, Grading and Construction Activities:** Compliance with provisions of the SCAQMD District Rule 403. The Project shall comply with all applicable standards of the Southern California Air Quality Management District, including the following provisions of District Rule 403:
    - All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD District Rule 403. Wetting could reduce fugitive dust by as much as 50 percent.
    - The construction area shall be kept sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.
    - All clearing, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 mph), so as to prevent excessive amounts of dust.
    - All dirt/soil loads shall be secured by trimming, watering or other appropriate means to prevent spillage and dust.
    - All dirt/soil materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amount of dust.
    - General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.
    - Trucks having no current hauling activity shall not idle but be turned off.
- In accordance with Sections 2485 in Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.
- In accordance with Section 93115 in Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.
- The Project shall comply with South Coast Air Quality Management District Rule 1113 limiting the volatile organic compound content of architectural coatings.
- The Project shall install odor-reducing equipment in accordance with South Coast Air Quality Management District Rule 1138.

d. Project Impacts

(1) Construction Impacts

(a) Regional Construction Impacts

Threshold AQ-1: A significant impact would occur if regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily regional numeric indicators: 75 pounds a day for VOC; 100 pounds per day for NO_X; 550 pounds per day for CO; 150 pounds per day for SO_2; 150 pounds per day for PM_{10}; 55 pounds per day for $PM_{2.5}$.

Impact Statement AQ-1: *Construction of the Project would not exceed the applicable SCAQMD daily regional numeric thresholds for VOC, NO_X, CO, SO_2, PM_{10}, or $PM_{2.5}$. Therefore, regional construction emission impacts would be less than significant.*

The worst-case daily emissions were calculated as maximum daily construction emissions for each phase by year. Some individual construction phases do overlap and it should be noted that the maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Construction Phase 1 and 2, however, would not overlap. Detailed emissions calculations are provided in Appendix C. Results of the criteria pollutant calculations are presented in **Table 4.B-5**, *Phase 1 – Maximum Unmitigated Regional Construction Emissions*, and **Table 4.B-6**, *Phase 2 – Maximum Unmitigated Regional Construction Emissions*. As shown therein, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$) would not exceed the SCAQMD numeric indicators. These calculations include appropriate dust control measures required to be implemented during each phase of development, as required by SCAQMD Rule 403 (Control of Fugitive Dust). Construction emission estimates also include emissions reductions from implementation of the Project Design Features, such as the use of equipment that meet the Tier 4 emissions standards for off-road construction equipment. Therefore, with respect to regional emissions from Phase 1 and 2 construction activities, impacts would be less than significant.

(b) Localized Construction Impacts

Threshold AQ-2: A significant impact would occur if the maximum daily localized emissions of NO_X and/or CO during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for NO_2 and/or CO.

Threshold AQ-3: A significant impact would occur if the maximum daily localized emissions of PM_{10} and/or $PM_{2.5}$ during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed 10.4 $\mu g/m^3$ over 24 hours (SCAQMD Rule 403 control requirement).

Impact Statements AQ-2 and AQ-3: *Construction of the Project would not exceed the SCAQMD localized significance thresholds for CO, NO_X, PM_{10}, and $PM_{2.5}$ at nearby sensitive receptors. Impacts regarding the Project's contribution to local CO, NO_X, PM_{10}, and $PM_{2.5}$ concentrations would be less than significant.*

Table 4.B-5

Phase 1 – Maximum Unmitigated Regional Construction Emissions (pounds per day) [a]

Source	VOC	NO_X	CO	SO_2	PM_{10} [b]	$PM_{2.5}$ [b]
2017 – Site Preparation	<1	1	7	<1	2	1
2017 – Demolition	<1	3	16	<1	1	<1
2017 – Grading	2	54	40	<1	6	3
2017 – Foundation	1	22	25	<1	2	<1
2018 – Foundation	1	19	24	<1	2	<1
2018 – Building Construction, Architectural Coating	28	14	62	<1	10	3
2019 – Building Construction, Architectural Coating, Paving	28	14	67	<1	10	3
2020 – Building Construction, Architectural Coating	28	12	55	<1	10	3
Maximum Regional (On-Site and Off-Site) Emissions	**28**	**54**	**67**	**<1**	**10**	**3**
SCAQMD Numeric Indicators	**75**	**100**	**550**	**150**	**150**	**55**
Over/(Under)	(47)	(46)	(483)	(150)	(140)	(52)
Exceeds Thresholds?	No	No	No	No	No	No

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*

[b] *Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.*

Source: PCR, 2016

The localized construction air quality analysis was conducted using the methodology described in the SCAQMD *Localized Significance Threshold Methodology* (June 2003, revised July 2008).[42] The screening criteria provided in the *Localized Significance Threshold Methodology* were used to determine localized construction emissions thresholds for the Project. The maximum daily localized emissions for each of the construction phases and localized significance thresholds are presented in **Table 4.B-7**, *Phase 1 – Maximum Unmitigated Localized Construction Emissions* and **Table 4.B-8**, *Phase 2 – Maximum Unmitigated Localized Construction Emissions*. As shown therein, maximum localized construction emissions for sensitive receptors would not exceed the localized thresholds for NO_X, CO, PM_{10}, and $PM_{2.5}$. Therefore, with respect to localized construction emissions, impacts would be less than significant.

[42] *South Coast Air Quality Management District, Localized Significance Thresholds, (2003, revised 2008), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed April 2016.*

Table 4.B-6

Phase 2 – Maximum Unmitigated Regional Construction Emissions (pounds per day) [a]

Source	VOC	NO_X	CO	SO_2	PM_{10} [b]	$PM_{2.5}$ [b]
2020 – Demolition	1	7	24	<1	3	1
2020 – Grading	2	38	36	<1	6	2
2020 – Foundation	1	15	23	<1	1	<1
2021 – Foundation	1	14	23	<1	1	<1
2021 – Building Construction, Architectural Coating, Paving	14	10	45	<1	7	2
2022 – Building Construction, Architectural Coating	14	9	35	<1	7	2
2023 – Building Construction, Architectural Coating	14	6	33	<1	7	2
Maximum Regional (On-Site and Off-Site) Emissions	**14**	**38**	**45**	**<1**	**7**	**2**
SCAQMD Numeric Indicators	**75**	**100**	**550**	**150**	**150**	**55**
Over/(Under)	(61)	(62)	(505)	(150)	(143)	(53)
Exceeds Thresholds?	No	No	No	No	No	No

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*

[b] *Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.*

Source: PCR, 2016

(2) Operations Impacts

(a) Regional Operations

Threshold AQ-4: A project would have a significant impact if the operational emissions exceed any of the following SCAQMD prescribed daily regional numeric indicators: 55 pounds a day for VOC; 55 pounds per day for NO_X; 550 pounds per day for CO; 150 pounds per day for SO_2; 150 pounds per day for PM_{10}; 55 pounds per day for $PM_{2.5}$.

Impact Statement AQ-4: *The Project's contribution to regional emissions during operations would be less than significant. Project operational emissions would be below the SCAQMD numeric indicators for VOC, NO_X, CO, SO_2, PM_{10} and $PM_{2.5}$.*

Operational emissions were assessed for mobile, area, and stationary sources. Operational criteria pollutant emissions were calculated for the Project for an interim year which corresponds to buildout of Phase 1 (2020) with concurrent construction of Phase 2 and the full buildout year (2023). Daily trip generation rates for the Project were provided by the Project traffic study[43] and include trips associated with the proposed condos, hotel, office, retail space, and restaurants. Operational emission estimates also incorporate the green building design features detailed in PDF-AQ-1, including indoor and outdoor water reduction and increased energy efficiency. With regard to VOCs, SCAQMD Rule 1113 would be enforced and the LEED or equivalent design feature would be implemented that limits interior architectural coating emissions to 50 g/L. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

[43] *Gibson Transportation Consulting, Inc., Traffic Study for the 1020 S. Figueroa Street Project, Los Angeles, California, (2016).*

Table 4.B-7

Phase 1 – Maximum Unmitigated Localized Construction Emissions (pounds per day) [a]

Source	NO_X	CO	PM_{10} [b]	$PM_{2.5}$ [b]
2017 – Site Preparation	1	6	2	1
2017 – Demolition	1	15	1	<1
2017 – Grading	8	33	3	1
2017 – Foundation	4	21	<1	<1
2018 – Foundation	4	21	<1	<1
2018 – Building Construction, Architectural Coating	4	21	<1	<1
2019 – Building Construction, Architectural Coating, Paving	4	29	<1	<1
2020 – Building Construction, Architectural Coating	3	21	<1	<1
Maximum Localized (On-Site) Emissions	**8**	**33**	**3**	**1**
SCAQMD Numeric Indicators	**108**	**1,048**	**8**	**5**
Over/(Under)	(100)	(1,015)	(5)	(4)
Exceeds Thresholds?	No	No	No	No

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*
[b] *Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.*

Source: PCR, 2016

Table 4.B-8

Phase 2 – Maximum Unmitigated Localized Construction Emissions (pounds per day) [a]

Source	NO_X	CO	PM_{10} [b]	$PM_{2.5}$ [b]
2020 – Demolition	2	23	2	<1
2020 – Grading	6	32	3	1
2020 – Foundation	3	21	<1	<1
2021 – Foundation	3	21	<1	<1
2021 – Building Construction, Architectural Coating, Paving	3	21	<1	<1
2022 – Building Construction, Architectural Coating	2	12	<1	<1
2023 – Building Construction, Architectural Coating	2	12	<1	<1
Maximum Localized (On-Site) Emissions	**6**	**32**	**3**	**1**
SCAQMD Numeric Indicators	**108**	**1,048**	**8**	**5**
Over/(Under)	(102)	(1,016)	(5)	(4)
Exceeds Thresholds?	No	No	No	No

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*
[b] *Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.*

Source: PCR, 2016

Results of the criteria pollutant calculations are presented in **Table 4.B-9**, *Interim Year – Maximum Unmitigated Regional Operational Emissions* and **Table 4.B-10**, *Full Buildout Year – Maximum Unmitigated Regional Operational Emissions*. The increase in operational-related daily emissions (Project emissions minus existing emissions) for the criteria and precursor pollutants (VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$) would not exceed the SCAQMD thresholds of significance during interim operations when combined with on-going construction emissions. Therefore, with respect to regional emissions from operations, impacts would be less than significant during interim operations. At full buildout, the increase in long-term operational emissions would also not exceed thresholds for regional criteria pollutant emissions. Therefore, Project-related operational emissions would result in a less-than-significant impact.

Table 4.B-9

Interim Year – Maximum Unmitigated Regional Operational Emissions (pounds per day) [a]

Source	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 1 Operations						
Area (Consumer Products, Landscaping)	21	<1	24	<1	<1	<1
Energy (Natural Gas)	<1	3	2	<1	<1	<1
Stationary (Charbroiling)	<1	–	–	–	0.9	0.9
Motor Vehicles	2	1	19	<1	19	5
Phase 2 Maximum Construction Emissions	14	38	45	<1	7	2
Total Project On-Site and Off-Site Emissions	**38**	**43**	**96**	**<1**	**27**	**8**
Existing Operational Emissions (removed)	7	2	16	<1	7	2
Maximum Net Regional (On-Site and Off-Site) Emissions	**31**	**41**	**80**	**<1**	**20**	**6**
SCAQMD Numeric Indicators	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	(24)	(14)	(470)	(150)	(130)	(49)
Exceeds Thresholds?	No	No	No	No	No	No

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*

Source: PCR, 2016

(b) Localized Operations

Threshold AQ-5: A significant localized operations impact would occur if maximum daily localized emissions of NO_X and/or CO during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent applicable ambient air quality standards.

Table 4.B-10

Full Buildout Year – Maximum Unmitigated Regional Operational Emissions (pounds per day) [a]

Source	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 1 and 2 Operations (Full Buildout)						
Area (Consumer Products, Landscaping)	35	1	54	<1	<1	<1
Energy (Natural Gas)	<1	4	3	<1	<1	<1
Stationary (Charbroiling)	<1	–	–	–	0.9	0.9
Motor Vehicles	3	2	23	<1	33	9
Total Project On-Site and Off-Site Emissions	**39**	**8**	**91**	**<1**	**34**	**10**
Existing Operational Emissions (removed)	7	2	16	<1	7	2
Maximum Net Regional (On-Site and Off-Site) Emissions	**32**	**6**	**75**	**<1**	**27**	**8**
SCAQMD Numeric Indicators	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	(23)	(49)	(475)	(150)	(123)	(48)
Exceeds Thresholds?	No	No	No	No	No	No

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*

Source: PCR, 2016

Threshold AQ-6: A significant localized operations impact would occur if maximum daily localized emissions of PM_{10} and/or $PM_{2.5}$ during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed 2.5 μg/m³ over 24 hours (SCAQMD Rule 1303 allowable change in concentration).

Impact Statement AQ-5 and AQ-6: *Localized impacts due to Project operations would be less than significant. Project operational emissions of NO_X, CO, PM_{10} and $PM_{2.5}$ would be less than the SCAQMD numeric thresholds.*

The localized operational air quality analysis was conducted using the methodology described in the SCAQMD *Localized Significance Threshold Methodology* (June 2003, revised July 2008).[44] The screening criteria provided in the *Localized Significance Threshold Methodology* were used to determine localized operational emissions thresholds for the Project. The maximum daily increase in localized emissions (Project emissions minus existing emissions) and localized significance thresholds are presented in **Table 4.B-11**, *Interim Year – Maximum Unmitigated Localized Operational Emissions* and **Table 4.B-12**, *Full Buildout Year – Maximum Unmitigated Localized Operational Emissions*. As shown therein, the increase in maximum localized operational emissions for sensitive receptors would not exceed the localized thresholds for NO_X, CO, PM_{10}, and $PM_{2.5}$ during both the interim year (2020, Phase 1 operations) and full buildout year

[44] *South Coast Air Quality Management District, Localized Significance Thresholds, (2003, revised 2008), http://www.aqmd.gov/ceqa/handbook/LST/LST.html. Accessed September 2015.*

Table 4.B-11

Interim Year – Maximum Unmitigated Localized Operational Emissions (pounds per day) [a]

Source	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 Operations				
Area (Consumer Products, Landscaping)	<1	24	<1	<1
Energy (Natural Gas)	3	2	<1	<1
Stationary (Charbroiling)	–	–	0.9	0.9
Total Project On-Site Emissions	**3**	**26**	**1**	**1**
Existing Operational On-Site Emissions (removed)	1	1	<1	<1
Maximum Net Localized (On-Site) Emissions	**2**	**25**	**1**	**1**
SCAQMD Numeric Indicators	**108**	**1,048**	**2**	**2**
Over/(Under)	(106)	(1,023)	(1)	(1)
Exceeds Thresholds?	No	No	No	No

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*

Source: PCR, 2016

(2023, Phases 1 and 2 operations). Therefore, with respect to localized operational emissions, impacts would be less than significant.

Table 4.B-12

Full Buildout Year – Maximum Unmitigated Localized Operational Emissions (pounds per day) [a]

Source	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 and 2 Operations (Full Buildout)				
Area (Consumer Products, Landscaping)	1	54	<1	<1
Energy (Natural Gas)	4	3	<1	<1
Stationary (Charbroiling)	–	–	0.9	0.9
Total Project On-Site Emissions	**5**	**57**	**1**	**1**
Existing On-Site Operational Emissions (removed)	1	1	<1	<1
Maximum Net Localized (On-Site) Emissions	**4**	**56**	**1**	**1**
SCAQMD Numeric Indicators	**108**	**1,048**	**2**	**2**
Over/(Under)	(104)	(992)	(2)	(2)
Exceeds Thresholds?	No	No	No	No

[a] *Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix C.*

Source: PCR, 2016

(c) Carbon Monoxide Hotspots

Threshold AQ-7: A significant impact would occur if either of the following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:

- The Project would cause or contribute to an exceedance of the one-hour CO CAAQS of 20 parts per million (ppm), or
- The Project would cause or contribute to an exceedance of the eight-hour CO CAAQS of 9.0 ppm.

Impact Statement AQ-7: *Project impacts regarding the concentration of CO at intersections in the Project vicinity would be less than significant. The number of traffic trips generated by the Project would not contribute to the formation of CO hotspots in excess of the applicable standards.*

The potential for the Project to cause or contribute to CO hotspots is evaluated by comparing Project intersections (both intersection geometry and traffic volumes) with prior studies conducted by the SCAQMD in support of their AQMPs and considering existing background CO concentrations. As discussed below, this comparison demonstrates that the Project would not cause or contribute considerably to the formation of CO hotspots, that CO concentrations at Project impacted intersections would remain well below the ambient air quality standards, and that no further CO analysis is warranted or required.

As shown previously in Table 4.B-2, CO levels in the Project Area are substantially below the federal and state standards. Maximum CO levels in recent years are 3 ppm (one-hour average) and 2.4 ppm (eight-hour average) compared to the thresholds of 20 ppm (one-hour average) and 9.0 (eight-hour average). Carbon monoxide decreased dramatically in the Air Basin with the introduction of the catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the Air Basin for some time and the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. Thus, it is not expected that CO levels at Project-impacted intersections would rise to the level of an exceedance of these standards.

Additionally, the SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include: (a) Wilshire Boulevard and Veteran Avenue; (b) Sunset Boulevard and Highland Avenue; (c) La Cienega Boulevard and Century Boulevard; (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day.[45] This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.[46] When added to the existing background CO concentrations, the screening values would be 7.6 ppm (one-hour average) and 5.6 ppm (eight-hour average).

[45] *South Coast Air Quality Management District, 2003 Air Quality Management Plan, Appendix V: Modeling and Attainment Demonstrations, (2003) V-4-24.*

[46] *The eight-hour average is based on a 0.7 persistence factor, as recommended by the SCAQMD.*

Based on the Project's associated Traffic Study, of the studied intersections that are predicted to operate at a Level of Service ("LOS") of D, E, or F under future operational year plus project conditions, one intersection would potentially have peak traffic volumes of approximately 62,000 per day.[47] As a result, CO concentrations are expected to be approximately 5.9 ppm (one-hour average) and 4.4 ppm (eight-hour average) or less, which would not exceed the thresholds.[48] Total traffic volumes at the maximum impacted intersection would likely have to more than double to contribute to a CO hotspot given that vehicles operating today have reduced CO emissions as compared to vehicles operating in year 2003 when the SCAQMD conducted the AQMP attainment demonstration modeling. Thus, this comparison demonstrates that the Project would not contribute considerably to the formation of CO hotspots and no further CO analysis is required. The Project would result in less than significant impacts with respect to CO hotspots.

(3) Toxic Air Contaminants

Threshold AQ-8: A project would have a significant impact with respect to TACs if it emits carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic hazard index of 1.0.

Impact Statement AQ-8: *Impacts from the emission of TACs would be less than significant for Project construction and less than significant with respect to Project operations. Based on the State's recently updated conservative HRA guidelines, the Project's construction-period emissions of DPM, a State-recognized human carcinogen, in close proximity to sensitive off-site residential receptors to the north, east, southeast, and south would result in a less than significant increase in life-time cancer risk to those residential uses. Health impacts from the removal and transport of contaminated soils and materials from the Project Site would not substantially contribute to construction health risks and would be less than significant. The Project would not include permanent sources (equipment, etc.) that would generate significant amounts of long-term TAC emissions in excess of the HRA guidelines.*

(a) Construction

The greatest potential for TAC emissions would be related to diesel particulate matter emissions associated with heavy equipment operations during demolition, grading and excavation, and building construction activities. In addition, incidental amounts of toxic substances such as oils, solvents, and paints would be used. These products would comply with all applicable SCAQMD rules for their manufacture and use. The Project will be subject to several SCAQMD rules designed to limit exposure to TACs during construction activities. The Project would be required to comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-

[47] *Gibson Transportation Consulting, Inc., Traffic Study for the 1020 S. Figueroa Street Project, Los Angeles, California, (2016). The traffic volume of approximately 62,000 was estimated based on the peak hour intersection volumes under future with Project conditions and the general assumption that peak hour trips represent approximately 10 percent of daily trip volumes (the Federal Highway Administration considers 10 percent to be a standard assumption; see http://www.fhwa.dot.gov/planning/tmip/publications/other_reports/tod_modeling_procedures/ch02.cfm). The peak value was estimated at the intersection of Figueroa Street and Olympic Boulevard.*

[48] *The expected CO concentrations are calculated based on the ratio of 62,000/100,000 multiplied by the screening values of 4.6 ppm (one-hour average) and 3.2 ppm (eight-hour average) and adding the background concentrations. Actual CO value would likely be less than the expected values reported in the analysis as the average CO emissions from motor vehicles operating today have declined as compared to motor vehicles operating in year 2003.*

Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The Project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the renovation and construction activities. Furthermore, the Project would voluntarily implement the control measures described in PDF-AQ-2.

Health risk impacts (cancer risk) were assessed for existing and future off-site sensitive receptors (residential uses). **Table 4.8-13**, *Maximum Carcinogenic Risk for Off-Site Sensitive Receptors from Construction*, summarizes the carcinogenic risk for representative receptors located throughout the Project Site vicinity. For carcinogenic exposures, the cancer risk from DPM emissions from construction of the Project is estimated to result in a maximum carcinogenic risk of less than 8 per one million. The maximum impact would occur at sensitive land uses (residences) directly south of the Project Site. As discussed previously, the lifetime exposure under OEHHA guidelines takes into account early life (infant and children) exposure. It should be noted that the calculated cancer risk conservatively assumes that exposure of sensitive receptors (residential uses) would not have any mitigation, such as mechanical filtration. As the maximum impact would be less than the risk threshold of 10 in one million, impacts would be considered less than significant.

Table 4.B-13

Maximum Carcinogenic Risk for Off-Site Sensitive Receptors from Construction

Sensitive Receptor	Maximum Cancer Risk (# in one million)
Residence – South/Southeast of Project Site	7.9
Maximum Individual Cancer Risk Threshold	*10*
Exceeds Threshold?	*No*

Source: PCR, 2016

Potential non-cancer effects of chronic (i.e., long term) DPM exposures were evaluated using the Hazard Index approach as described in the OEHHA Guidance. A hazard index equal to or greater than 1.0 represents a significant chronic health hazard. As shown in **Table 4.B-14**, *Maximum Non-Cancer Chronic Impacts for Off-Site Sensitive Receptors,* nearby off-site sensitive receptors would not be exposed to chronic impacts that would exceed the threshold of 1.0. The maximum impact would occur at sensitive receptors directly east of the Project Site. Therefore, non-cancer chronic impacts would be considered less than significant.

Table 4.B-14

Maximum Non-Cancer Chronic Impacts for Off-Site Sensitive Receptors

Sensitive Receptor	Chronic Hazard Index
Residence – South/Southeast of Project Site	0.009
Total Hazard Index	*1.0*
Exceeds threshold?	*No*

Source: PCR, 2016

The Project Site previously had a gas station and auto repair shop at the intersection of Figueroa Street and Olympic Boulevard, which were removed from the Project Site in 1990 and replaced with the existing surface parking lot. During removal of the gas station, soil contamination was reported at the underground storage tanks (USTs) and fuel dispensers. A vapor extraction system (VES) remediation system removed 90 percent of the total estimated gasoline that leaked from the station and LAFD issued a No Further Action letter on June 10, 1994. A 530-gallon diesel UST, transition pump, and associated underground piping were abandoned in place below the existing hotel driveway and landscaped median under a Covenant and Agreement with the City. Petroleum hydrocarbons were identified in shallow soil samples in the vicinity of the abandoned UST and associated piping. Refer to Section 4.E, *Hazards and Hazardous Materials*, for additional details. As discussed in Section 4.E, the removal of these soils and infrastructure would likely require special handling during excavation, including additional analytical characterization, soil segregation, and transport off-site to be recycled/disposed of in accordance with Federal, State and local regulations. The Project would implement Mitigation Measures MM-HAZ-1 (Soil Management Plan), MM-HAZ-2 (Health and Safety Plan), and MM-HAZ-3 (Additional Site Testing) to ensure that any contaminated soils are properly identified, excavated and disposed of off-site in accordance with SCAQMD Rule 1166 (Volatile Organic Compound Emissions from Decontamination of Soil), to avoid significant impacts or risks to workers or the public in the event that elevated levels of subsurface gases are encountered during grading and excavation, and to conduct additional subsurface soil and soil gas sampling and testing in accordance with the recommendations of the *Summary Report for Limited Soil and Soil Gas Investigation, Luxe Hotel*, prepared by Terra-Petra and dated April 10, 2016. Recommendations pertaining to remediation, public health, and worker safety based on the additional sampling and testing would be incorporated into the Soil Management Plan. Implementation of MM-HAZ-1, MM-HAZ-2, and MM-HAZ-3 would ensure that contaminated soils and materials are removed from the Project Site and transported in a manner that minimizes or prevents the potential for contaminated soils and materials from becoming airborne or otherwise released into the environment. As a result, health impacts from contaminated soils and materials would not substantially contribute to construction health risks and air quality and would be less than significant.

The process of assessing health risks and impacts includes a degree of uncertainty. The level of uncertainty depends on the availability of data and the extent to which assumptions are relied upon in cases where the data are incomplete or unknown. All HRAs rely upon scientific studies to reduce the level of uncertainty; however, it is not possible to completely eliminate uncertainty from the analysis. Where assumptions are used to substitute for incomplete or unknown data, it is standard practice in performing HRAs to err on the side of health protection to avoid underestimating or underreporting the risk to the public. In general, sources of uncertainty that may lead to an overestimation or an underestimation of the risk include extrapolation of toxicity data in animals to humans and uncertainty in the exposure estimates. In addition to uncertainty, there exists "a natural range or variability in measured parameters defining the exposure scenario" and that the "the greatest quantitative impact is variation among the human population in such properties as height, weight, food consumption, breathing rates, and susceptibility to chemical toxicants."[49] As mentioned previously, it is typical to err on the side of health protection by assessing risk on the most sensitive populations, such as children and the elderly, by modeling potential impacts based on high-end breathing rates, by incorporating age sensitivity factors, and by not taking into account exposure reduction measures, such as mechanical air filtration building systems.

[49] *California Environmental Protection Agency, Office of Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, (2015) 1-5.*

(b) Operations

Project operations would generate only minor amounts of diesel emissions from delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce PM and NO_X emissions from existing diesel trucks. Therefore, the Project operations would not be considered a substantial source of diesel particulates.

In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings and other products. The Project's restaurant uses could potentially generate TACs if charbroiling activities occur at the restaurant, which has the potential to generate small amounts of chemicals that are known or suspected by the State of California to cause human health impacts.[50] However, restaurant charbroiling in the Air Basin would be required to comply with SCAQMD Rule 1138 (Control of Emissions from Restaurant Operations), which requires the installation of emissions controls on charbroilers. The emissions controls would reduce the already small amounts of TAC emissions associated with charbroiling by approximately 83 percent,[51] such that adverse health impacts are not expected to occur at nearby sensitive receptors. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed land uses within the Project Site. Based on the uses expected on the Project Site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance. Therefore, impacts would be less than significant.

(4) Consistency of the Project with Applicable Plans and Policies

Threshold AQ-9: A significant impact would occur if the Project would substantially conflict with or obstruct implementation of relevant environmental policies in the General Plan or other adopted regional and local plans adopted for reducing air quality impacts.

Impact Statement AQ-9: *Impacts regarding consistency with applicable plans and policies would be less than significant. Construction and operation of the Project would be consistent with the RTP projections that are used in preparing the AQMP. The Project would contribute to land use patterns that reduce vehicle trips, and would include Project Design Features that reduce energy consumption, thus reducing air quality emissions. Further, the Project would comply with applicable control measures. Therefore, the Project would contribute to reductions in air quality emissions in the manner suggested in the applicable plans.*

(a) Air Quality Management Plan (AQMP) Consistency

(i) Construction

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment or residential units) upon which the

[50] *U.S. Environmental Protection Agency, Polycyclic Aromatic Hydrocarbons (PAHs), January 2008, http://www.epa.gov/osw/hazard/wastemin/minimize/factshts/pahs.pdf. Accessed April 2016.*

[51] *U.S. Environmental Protection Agency, Methods for Developing a National Emission Inventory for Commercial Cooking Processes: Technical Memorandum, (2003).*

air quality plan are based. The Project would result in an increase in short-term employment compared to existing conditions. Being relatively small in number and temporary in nature, construction jobs under the Project would not conflict with the long-term employment projections upon which the AQMP are based. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. ~~(Refer to Appendix C, Section 2.0, *Regulatory Setting and Significance Thresholds*, of this Draft EIR, for a summary of the AQMP control strategies ONRD-04 and OFFRD-01.)~~ The Project would not conflict with implementation of these strategies. Additionally, the Project would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the Project would not conflict with the long-term growth projections (jobs and housing) used in the development of the AQMP, and would be consistent with the control strategies intended to reduce emissions from construction equipment, the Project would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

(ii) Operation

The 2012 AQMP was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

As discussed in **Section 4.F**, *Land Use and Planning*, of this Draft EIR, the Project Site is zoned C2-4D-O on the western lots and [Q]R5-4D-O on the southeastern lots. The 4 indicates Height District 4, unlimited building height with a maximum FAR of 13:1. The D indicates a Development Limitation that limits the maximum FAR to 6:1, with an increase to a maximum FAR of 13:1 with a TFAR. The requested FAR of 9.7:1 would be below the maximum FAR of 13:1. The Project would therefore be consistent with the growth projections as contained in the City's General Plan and consistent with the growth projections in the AQMP.

The AQMP includes Transportation Control Measures that are intended to reduce regional mobile source emissions. While the majority of the measures are implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, the Project would support measures related to reducing vehicle trips for patrons and employees and increasing commercial density near public transit, as discussed above (see discussion under subsection 4.B.1.3.c(1), Project Characteristics).

As the Project would be consistent with the growth projections in the AQMP and would support relevant Transportation Control Measures aimed at reducing vehicle trips, impacts would be less than significant.

(b) General Plan Air Quality Element

The City's General Plan defines Citywide policies regarding a range of City resources and services, some of which are relevant to air quality. **Table 4.B-15**, *Comparison of the Project to Applicable Air Quality Policies of the General Plan*, evaluates the consistency of the Project with the applicable air quality goals, objectives, and policies in the Air Quality Element of the General Plan.

Table 4.B-15

Comparison of the Project to Applicable Air Quality Policies of the General Plan

Recommendation	Analysis of Project Consistency
Air Quality Element	
Goal 1: Good air quality and mobility in an environment of continued population growth and healthy economic structure.	**Consistent.** The Project would incorporate Project Design Features that would meet and exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the equivalent of the USGBC LEED Silver Certification. The Project would also reduce VMT as a result of its urban infill location, with nearby access to public transportation within a quarter-mile of the Project Site, and its proximity to other destinations including job centers, retail and entertainment. The Project would add new residential units, which would allow people to live near work and recreational amenities.
Objective 1.1: It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan, increase traffic mobility, and sustain economic growth citywide.	**Consistent.** The Project's characteristics and Project Design Features would reduce emissions associated with energy and transportation. As discussed under Threshold AQ-1, the Project would be consistent with the relevant environmental policies as contained in the City's General Plan and would be consistent with the SCAG RTP projections that are used in preparing the AQMP. The Project would occupy a location that is highly accessible by regional and local bus lines, including the Metro Commuter Express 422/423/438/448/534 and DASH F, as well as the Metro Blue and Expo Lines rail lines which provides convenient access to Downtown Los Angeles. As such, the Project would be supportive of the Transportation Control Measures in the AQMP related to reducing vehicle trips for employees, visitors and residents. The Project would increase residential and commercial density near public transit, which would reduce the Project's transportation related emissions compared to a development that is not located near transit options.
Objective 1.3: It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.	**Consistent.** The Project would incorporate measures that would reduce particulate air pollutants from unpaved areas, parking lots, and construction sites. The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403. The Project would also comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks reducing exhaust diesel particulate matter emissions. The Project would require the use of a construction contractor(s) that complies with the applicable provisions of the CARB In-Use Off-Road Diesel Vehicle Regulation, which aims to reduce emissions through the installation of diesel particulate matter filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. The Project would require the use of contractors and vendors that comply with the applicable provisions of the CARB Truck and Bus regulation to reduce PM and NO_X emissions from existing diesel trucks.

Table 4.B-15 (Continued)

Comparison of the Project to Applicable Air Quality Policies of the General Plan

Recommendation	Analysis of Project Consistency
Policy 1.3.1: Minimize particulate emissions from construction sites.	**Consistent.** The Project would incorporate measures that would reduce particulate air pollutants from construction activity as described above under Objective 1.3.
Policy 1.3.2: Minimize particulate emissions from unpaved roads and parking lots associated with vehicular traffic.	**Consistent.** The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403, which would minimize particulate emissions from unpaved roads and parking lots associated with construction-related vehicular traffic.
Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.	**Consistent.** The Project's characteristics would reduce VMT due to its urban infill location, with nearby access to public transportation within a quarter-mile of the Project Site and location in an area with access to multiple other destinations, including job centers, and retail uses. In addition, the Project would include on-site residential, hotel, open space, and commercial land uses which would serve the local community and reduce reliance on single-occupancy vehicles. The Project would also provide bicycle parking facilities to encourage alternative modes of transportation.
Objective 2.1: It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.	**Consistent.** The Project would be located within a quarter-mile of existing public transportation, including existing Metro bus routes (e.g. 4, 28, 81, 442, 460, 701, 721, 728, 910/950, Commuter Express 422/423/438/448/534, DASH F) and Metro Blue and Expo Lines. The Metro Red and Purple Lines are within one-half mile of the Project Site. The Project would provide access to on-site uses from existing pedestrian pathways. The Project would also provide bicycle parking facilities. These features would reduce work trips and encourage employees, residents and visitors to utilize alternative modes of transportation.
Policy 2.1.1: Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to reduce vehicle trips and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	**Consistent.** The Project would be located within a quarter-mile of existing public transportation, provide access to on-site uses from existing pedestrian pathways, and provide bicycle parking facilities. These features would reduce work trips and encourage employees to utilize alternative modes of transportation.
Objective 2.2: It is the objective of the City of Los Angeles to increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles, and incentives for high occupancy vehicles.	**Consistent.** The Project would provide infrastructure for electric vehicle charging stations for electric vehicles consistent with the LA Green Building Code. In addition, the Project would encourage non-automotive transportation to the Project Site. As discussed previously, the Project would be located within a quarter-mile of existing and potential future planned public transportation, including existing Metro bus routes (e.g. 180/181, 217, and 2/302) and would provide on-site bicycle parking facilities.

Table 4.B-15 (Continued)

Comparison of the Project to Applicable Air Quality Policies of the General Plan

Recommendation	Analysis of Project Consistency
Policy 2.2.1: Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.	**Consistent.** The Project would be located within a quarter-mile of existing public transportation, including existing Metro bus routes (e.g. 4, 28, 81, 442, 460, 701, 721, 728, 910/950, Commuter Express 422/423/438/448/534, DASH F) and would provide on-site bicycle parking facilities. The Project would implement mitigation measure MM-TRAF-1, which requires the Applicant to implement a comprehensive Travel Demand Management (TDM) Program to promote non-auto travel and reduce the use of single-occupant vehicle trips (refer to Section 4.J, Transportation and Traffic, for additional information).
Policy 2.2.2: Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	**Consistent.** The Project would provide preferential parking for carpool and electric/hybrid vehicles.
Goal 4: Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.	**Consistent.** The Project's characteristics would reduce VMT due to its urban infill location, on-site amenities and commercial uses, access to public transportation within a quarter-mile of the Project Site, and close proximity to multiple other destinations including job centers and retail uses. The Project would increase the job density relative to the statewide and South Coast Air Basin average and increase the residential density near public transportation options, which would allow people to live near places of employment, retail, and recreation.
Objective 4.1: It is the objective of the City of Los Angeles to include the regional attainment of ambient air quality standards as a primary consideration in land use planning.	**Consistent.** The Project analysis of potential air quality impacts relied upon the numeric indicators established by the SCAQMD, which considers attainment of the ambient air quality standards. The Project also incorporates Project characteristics that would reduce land use planning-related air pollutant emissions consistent with recommended strategies from the CAPCOA (see Subsection 4.B.3.c(1) in this Section and Section 4.D, *Greenhouse Gas Emissions*, of this Draft EIR, for additional information regarding the CAPCOA recommended strategies). The Project would occupy an urban infill location in the Downtown area. The Project would co-locate complementary residential and commercial land uses in proximity to existing job centers and retail uses. The Project would be located within a quarter-mile of existing public transportation. Air quality impacts would be less than significant and would not cause or contribute to an exceedance of the ambient air quality standards.
Policy 4.1.2: Ensure that project level review and approval of land use development remain at the local level.	**Consistent.** The Project environmental review and approval would occur at the local level.
Objective 4.2: It is the objective of the City of Los Angeles to reduce vehicle trips and VMT associated with land use patterns.	**Consistent.** The Project's characteristics would reduce trips and VMT due to its urban infill location, access to public transportation within a quarter-mile of the Project Site, and proximity to employment and commercial destinations. The Project would include on-site retail, restaurant, and residential land uses that would serve the local community and would be located within a quarter-mile of off-site commercial and residential uses. The Project would also provide bicycle parking facilities to encourage utilization of alternative modes of transportation.

Table 4.B-15 (Continued)

Comparison of the Project to Applicable Air Quality Policies of the General Plan

Recommendation	Analysis of Project Consistency
Policy 4.2.2: Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	**Consistent.** The Project would provide residential, hotel, and commercial uses in a compact urban infill location. The Project's retail and restaurant uses would provide on-site residents and nearby off-site residents with employment opportunities as well as shopping and dining options within walking distance. The Project would add new residential uses, as well as employment opportunities that are accessible via public and alternative forms of transportation including bicycling. The Project would occupy an urban infill location with access to public transportation within a quarter-mile of the Project Site. The Project would also be located within a quarter-mile of off-site commercial, retail, restaurant, entertainment and residential uses. The Project would also provide bicycle parking facilities to encourage utilization of alternative modes of transportation.
Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**Consistent.** The Project would provide bicycle parking facilities to encourage utilization of alternative modes of transportation. The Project would also provide access to on-site uses from existing pedestrian pathways. The Project would also provide infrastructure for electric vehicle charging stations and preferential parking for hybrid/electric vehicles.
Policy 4.2.4: Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	**Consistent.** The Project environmental review and potential approval include an analysis of air quality impacts.
Policy 4.2.5: Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	**Consistent.** The Project incorporates characteristics that would reduce VMT, encourage alternative transit, and incorporate congestion management. The Project would occupy an urban infill location within a quarter-mile of existing public transportation and would provide bicycle parking facilities to encourage alternative modes of transportation. The Project would implement mitigation measure MM-TRAF-1, which requires the Applicant to implement a comprehensive Travel Demand Management (TDM) Program to promote non-auto travel and reduce the use of single-occupant vehicle trips (refer to Draft EIR Section 4.J, Transportation and Traffic, for additional information).
Goal 5: Energy efficiency through land use and transportation planning, the use of renewable resources and less polluting fuels, and the implementation of conservation measures, including passive methods such as site orientation and tree planting.	**Consistent.** The Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the equivalent of LEED Silver Certification. The Project would incorporate sustainability measures and performance standards including implementing a construction waste management plan to divert all mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029, optimize energy performance and reduce building energy cost by 14 percent as specified in the LEED 2009 Energy and Atmosphere credit 1 (EAc1), and reducing indoor water use by a minimum of 40 percent and outdoor water use by a minimum of 50 percent.
Objective 5.1: It is the objective of the City of Los Angeles to increase energy efficiency of City facilities and private developments.	**Consistent.** As noted above, the Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the equivalent of LEED Silver Certification.

Table 4.B-15 (Continued)

Comparison of the Project to Applicable Air Quality Policies of the General Plan

Recommendation	Analysis of Project Consistency
Policy 5.1.2: Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.	**Consistent.** As noted above, the Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the equivalent of LEED Silver Certification.
Policy 5.1.4: Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.	**Consistent.** The Project would implement a construction waste management plan to divert all mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029. The Project would also provide space for the collection and storage of recyclables such as paper, cardboard, glass, plastic, and metals.
Objective 5.3: It is the objective of the City of Los Angeles to reduce the use of polluting fuels in stationary sources.	**Consistent.** As noted above, the Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the equivalent of LEED Silver Certification.
Policy 5.3.1: Support the development and use of equipment powered by electric or low-emitting fuels.	**Consistent.** As noted above, the Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the equivalent of LEED Silver Certification.

Source: PCR, 2016

e. Cumulative Impacts

(1) Construction

There are a number of cumulative projects in the Project area that have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the cumulative projects, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. For this reason, the SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed elsewhere in this Draft EIR. The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality.

With respect to the Project's short-term construction-related air quality emissions and cumulative conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. As such, construction of the Project would comply with SCAQMD Rule 403 requirements and the ATCM to limit heavy duty diesel motor vehicle idling to no more than 5 minutes at any given time. In addition, the Project would utilize a construction contractor(s) that complies with required and applicable BACT and the In-Use Off-Road Diesel Vehicle Regulation. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects in the Air Basin, which would include each of the cumulative projects in

the Project Area. As shown above in Table 4.B-5, Table 4.B-6, Table 4.B-7, and Table 4.B-8, regional and localized construction emissions associated with the Project would not exceed the SCAQMD numeric indicators. As such, the Project's contribution to cumulatively significant construction impacts to air quality would not be cumulatively considerable and cumulative impacts would be less than significant for regional and localized criteria pollutants during construction.

(2) Operation

The SCAQMD's approach for assessing cumulative impacts related to operations or long-term implementation is based on attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. As discussed earlier, the SCAQMD has developed a comprehensive plan, the AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. Because the Los Angeles County portion of the Air Basin is currently in nonattainment for ozone, NO_2, PM_{10}, and $PM_{2.5}$, cumulative projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts to air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. In particular, Section 15064(h)(3) of the CEQA *Guidelines* provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

> *"A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency…"*

For purposes of the cumulative air quality analysis with respect to CEQA Guidelines Section 15064(h)(3), the Project's incremental contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD adopted 2012 AQMP. The Project would not conflict with or obstruct implementation of AQMP and would be consistent with the growth projections in the AQMP.

Nonetheless, SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed previously, the Project would not exceed the SCAQMD regional numeric indicators. Therefore, the Project's incremental contribution to long-term emissions of non-attainment pollutants and ozone precursors, considered together with cumulative projects, would not be cumulatively considerable, and therefore the cumulative impact of the Project would be less than significant.

4. MITIGATION MEASURES

(1) Construction

As described above, the Project would implement a Project Design Feature (PDF-AQ-2) that would minimize construction emissions. As shown in Table 4.B-5 and 4.B-6, regional emissions during both phases of construction would not exceed the SCAQMD numeric indicators. Therefore, regional emissions would be less than significant. As shown in Table 4.B-7 and 4.B-8, the Project also would not exceed the localized SCAQMD numeric indicators. Therefore, localized emissions would be less than significant. As shown in Table 4.B-13, the Project's construction-related health risk impacts due to Project construction emissions would not exceed the SCAQMD significance thresholds with regard to incremental increase in cancer risk. Therefore, construction health risks would be less than significant. No construction mitigation measures would be required.

(2) Operation

The Project would not result in significant operational impacts associated with air quality. Therefore, no operational mitigation measures would be required.

5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

(1) Construction

Not applicable. Impacts related to Project construction emissions and consistency with applicable air quality management plans, policies, or regulations would be less than significant.

(2) Operation

Not applicable. Impacts related to Project operational emissions and consistency with applicable air quality management plans, policies, or regulations would be less than significant.