IV. Environmental Impact Analysis
B. Air Quality

1. Introduction

This section of the Draft EIR quantifies the air quality emissions generated by construction and operation of the Project and addresses whether the Project conflicts with implementation of the South Coast Air Quality Management District (SCAQMD)'s Air Quality Management Plan (AQMP) or violates any air quality standards. The analysis of Project-generated air emissions focuses on whether the Project would cause an exceedance of an ambient air quality standard or SCAQMD significance threshold. Calculation worksheets, assumptions, and model outputs used in the analysis are included in Appendix B of this Draft EIR.

2. Environmental Setting

a. Air Quality Background

The Project is located within the South Coast Air Basin (Air Basin), an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and San Diego County to the south. The Air Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the Coachella Valley area in Riverside County. The regional climate within the Air Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Air Basin is primarily influenced by meteorology and a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, and industry.

Air pollutant emissions within the Air Basin are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways.

Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect the public health and welfare. 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 and state standards 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. The national and state criteria pollutants and the applicable ambient air quality standards are listed in Table IV.B-1 on page IV.B-3.

b. Air Pollution

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 within the Air Basin. The criteria air pollutants for which national and state standards have been promulgated and which are most relevant to current air quality planning and regulation in the Air Basin include ozone (O_3), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), sulfates, and hydrogen sulfide (H_2S). In addition, volatile organic compounds (VOCs) and toxic air contaminants (TACs) are of concern in the Air Basin. Each of these is briefly described below.

(1) Criteria Pollutants

(a) Ozone (O_3)

O_3 is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of O_3 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

Table IV.B-1
Ambient Air Quality Standards

Pollutant	Averaging Period	California Standard[a,b]	Federal Standard[a,b]	SCAQMD Attainment Status[c]	
				California Standard[d]	Federal Standard[d]
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m^3)	—	Non-Attainment	—
	8 hour	0.07 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Non-Attainment	Non-Attainment (Extreme)
Respirable Particulate Matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	Non-Attainment	Attainment
	Annual	20 µg/m^3	—		
Fine Particulate Matter ($PM_{2.5}$)	24 hour	—	35 µg/m^3	Non-Attainment	Non-Attainment (Serious)
	Annual	12 µg/m^3	12 µg/m^3		
Carbon Monoxide (CO)	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Attainment	Attainment
	8 hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)		
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm (339 µg/m^3)	0.10 ppm (188 µg/m^3)	Attainment	Unclassified/ Attainment
	Annual	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)		
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	Attainment	Unclassified/ Attainment
	3 hour	—	0.5 ppm (1,300 µg/m^3)		
	24 hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)		
	Annual	—	0.03 ppm (80 µg/m^3)		
Lead (Pb)	30-day average	1.5 µg/m^3	—	Attainment	Partial Non-Attainment[e]
	Rolling 3-month average	—	0.15 µg/m^3		
Sulfates	24 hour	25 µg/m^3	—	Attainment	—
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm (42 µg/m^3)	—	Unclassified	—

ppm = parts per million by volume

µg/m^3 = micrograms per cubic meter

[a] *An ambient air quality standard is a concentration level expressed in either parts per million or micrograms per cubic meter and averaged over a specific time period (e.g., 1 hour). The different averaging times and concentrations are meant to protect against different exposure effects. Some ambient air quality standards are expressed as a concentration that is not to be exceeded. Others are*

Table IV.B-1 (Continued)
Ambient Air Quality Standards

Pollutant	Averaging Period	California Standard[a,b]	Federal Standard[a,b]	SCAQMD Attainment Status[c]	
				California Standard[d]	Federal Standard[d]
expressed as a concentration that is not to be equaled or exceeded.					
[b] *Ambient Air Quality Standards based on the 2016 AQMP.*					
[c] *"Attainment" means that the regulatory agency has determined based on established criteria, that the Air Basin meets the identified standard. "Non-attainment" means that the regulatory agency has determined that the Air Basin does not meet the standard. "Unclassified" means there is insufficient data to designate an area, or designations have yet to be made.*					
[d] *California and Federal standard attainment status based on SCAQMD's 2016 AQMP.*					
[e] *An attainment re-designation request is pending.*					
Source: Eyestone Environmental, 2020.					

severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

(b) Particulate Matter (PM_{10} and $PM_{2.5}$)

The human body naturally prevents the entry of larger particles into the body. However, small particles, with an aerodynamic diameter equal to or less than 10 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 $PM_{2.5}$. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

(c) Carbon Monoxide (CO)

CO 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.

(d) Nitrogen Dioxide (NO_2)

NO_2 is a byproduct of fuel combustion and major sources include power plants, large industrial facilities, and motor vehicles. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), which reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}. Nitrogen oxides irritate the nose and throat, and increase one's susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO_X is as a precursor to the formation of ozone.

(e) 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. SO_2 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.

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

(g) Sulfates (SO_4^2)

Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

(h) Hydrogen Sulfide (H_2S)

H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the state standard could result in exposure to a very disagreeable odor.

(2) 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. While there are no specific VOC ambient air quality standards, VOC is a prime component (along with NO_X) of the photochemical processes by which such criteria pollutants as ozone, nitrogen dioxide, and certain fine particles are formed. They are, thus, regulated as "precursors" to formation of those criteria pollutants.

(3) Toxic Air Contaminants (TACs)

TACs refer to a diverse group of "non-criteria" air pollutants that can affect human health but have not had ambient air quality standards established for them. This is not because they are fundamentally different from the pollutants discussed above but because their effects tend to be local rather than regional. TACs are classified as carcinogenic and noncarcinogenic, where carcinogenic TACs can cause cancer and noncarcinogenic TAC can cause acute and chronic impacts to different target organ systems (e.g., eyes, respiratory, reproductive, developmental, nervous, and cardiovascular).

The California Air Resources Board (CARB)[1] and the Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a TAC in California. A complete list of these substances is maintained on CARB's website.[2]

Diesel particulate matter (DPM), which is emitted in the exhaust from diesel engines, was listed by the state as a TAC in 1998. DPM has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. DPM consists of fine particles (fine particles that have a diameter less than 2.5 micrometer (µm)), including a subgroup of

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[1] *CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both state and federal air pollution control programs within California.*

[2] *CARB, Toxic Air Contaminant Identification List, www.arb.ca.gov/toxics/id/taclist.htm, last reviewed by CARB July 18, 2011.*

ultrafine particles (ultrafine particles have a diameter less than 0.1 µm). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to DPM may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. DPM levels and resultant potential health effects may be higher in close proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, DPM exposure may lead to the following adverse health effects: (1) aggravated asthma; (2) chronic bronchitis; (3) increased respiratory and cardiovascular hospitalizations; (4) decreased lung function in children; (5) lung cancer; and (6) premature deaths for people with heart or lung disease.[3,4]

To provide a perspective on the contribution that DPM has on the overall statewide average ambient air toxics potential cancer risk, CARB evaluated risks from specific compounds using data from CARB's ambient monitoring network. CARB maintains a 21-site air toxics monitoring network, which measures outdoor ambient concentration levels of approximately 60 air toxics. CARB has determined that, of the top ten inhalation risk contributors, DPM contributes approximately 68 percent of the total potential cancer risk.[5]

c. Regulatory Framework

The Project Site and vicinity are subject to federal, state, and local air quality laws and regulations. A number of plans and policies have been adopted by various agencies that address air quality concerns. Those laws, regulations, plans, and policies that are relevant to the Project are discussed below.

(1) Criteria Pollutants

(a) Federal

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments in 1990. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible

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[3] *CARB, Overview: Diesel Exhaust and Health, www.arb.ca.gov/research/diesel/diesel-health.htm, accessed on February 14, 2020.*

[4] *CARB, Fact Sheet: Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, March 2008.*

[5] *SCAQMD, MATES IV Final Report, 2015.*

for implementation of some portions of the CAA (e.g., certain mobile source and other requirements). Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the National Ambient Air Quality Standard (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. Table IV.B-1 on page IV.B-3 shows the NAAQS currently in effect for each criteria pollutant and their relative attainment status. The Air Basin fails to meet national standards for O_3 and $PM_{2.5}$ and, therefore, is considered a federal "non-attainment" area for these pollutants. In addition, Los Angeles County fails to meet the national standard for lead and, therefore, is considered a federal "non-attainment" area for lead.

(b) State

(i) California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. Table IV.B-1 includes the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the state. As shown in Table IV.B-1, the CAAQS include more stringent standards than the NAAQS. The Air Basin fails to meet state standards for O_3, PM_{10} and $PM_{2.5}$ and, therefore, is considered a state "non-attainment" area for these pollutants.

(ii) California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by the state agencies pursuant to the Administrative Procedure Act (APA). The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to 5 minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

(c) Regional

(i) South Coast Air Quality Management District (SCAQMD)

The SCAQMD shares responsibility with CARB for ensuring that all state and federal ambient air quality standards are achieved and maintained throughout the Air Basin.

To meet the CAAQS and NAAQS, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs). The 2016 AQMP incorporates the Southern California Association of Governments' (SCAG) 2016–2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016–2040 RTP/SCS) and updated emission inventory methodologies for various source categories. The 2016 AQMP also includes new federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches.

The AQMP provides emissions inventories, ambient measurements, meteorological episodes, and air quality modeling tools. The AQMP also provides policies and measures to guide responsible agencies in achieving federal standards for healthful air quality in the Air Basin. It also incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources.

The SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operation

The following SCAQMD rules and regulations would be applicable to the Project:

- SCAQMD Rule 403 requires projects to incorporate fugitive dust control measures at least as effectively as the following measures:
  - Use watering to control dust generation during the demolition of structures;
  - Clean-up mud and dirt carried onto paved streets from the site;
  - Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;
  - All haul trucks would be covered or would maintain at least 6 inches of freeboard;
  - All materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of spillage or dust;

  - Suspend earthmoving operations or implement additional watering to meet Rule 403 criteria if wind gusts exceed 25 mph; and

  - The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by construction and hauling, and at all times provide reasonable control of dust caused by wind. 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.

- SCAQMD Rule 1113 limits the VOC content of architectural coatings.

- SCAQMD Rule 1403 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.

- SCAQMD Regulation XIII, New Source Review, requires new on-site facility nitrogen oxide emissions to be minimized through the use of emission control measures (e.g., use of best available control technology for new combustion sources such as boilers, emergency generators, and water heaters).

(ii) Southern California Association of Governments (SCAG)

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 coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements, including applicable federal, state, and air district laws and regulations. As the federally designated Metropolitan Planning Organization (MPO) for the six-county Southern California region, SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. In addition, SCAG is a co-producer, with the SCAQMD, of the transportation strategy and transportation control measure sections of the 2016 AQMP. The development of the 2016 AQMP relies on population and transportation growth projections contained in SCAG's 2016–2040 RTP/SCS.

SCAG's 2016–2040 RTP/SCS, adopted on April 7, 2016, presents a long-term transportation vision through the year 2040 for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. The mission of the 2016–2040 RTP/SCS is to provide "leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern

Californians." The 2016–2040 RTP/SCS places a greater emphasis on sustainability and integrated planning compared to previous versions of the RTP. 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, while encouraging employment development around current and planned transit stations and neighborhood commercial centers.

(d) Local

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through their police power and 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 was prepared in response to California law requiring that each city and county adopt a long-term comprehensive general plan. This plan must be integrated and internally consistent, and must present goals, objectives, policies, and implementation guidelines for decision makers to use. The General Plan includes an Air Quality Element, which was adopted on November 24, 1992, that serves to aid the City in attaining the state and federal ambient air quality standards at the earliest feasible date, while still maintaining economic growth and improving the quality of life. The planning area for the Air Quality Element covers the entire City, which encompasses an area of about 465 square miles. The Air Quality Element and the accompanying Clean Air Program acknowledge the inter-relationships between transportation and land use planning in meeting the City's mobility and clean air goals. With the City's adoption of the Air Quality Element and the accompanying Clean Air Program, the City is seeking to achieve consistency with regional air quality growth management, mobility, and congestion management plans. The Air Quality Element sets forth the goals, objectives, and policies, which guide the City in the implementation of its air quality improvement programs and strategies.

The Air Quality Element establishes goals to address air quality issues within the City and region. To achieve the goals of the Air Quality Element, performance-based standards have been adopted to provide flexibility in implementation of its policies and objectives. The following Air Quality Element goals, objectives, and policies are relevant to the Project:

Goal 2—Less reliance on single-occupant vehicles with fewer commute and non-work trips.

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.

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 Vehicle Miles Traveled (VMT) as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.

Goal 4—Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

Objective 4.1—It is the objective of the City of Los Angeles to include regional attainment of ambient air quality standards as a primary consideration in land use planning.

Policy 4.1.1—Coordinate with all appropriate regional agencies in the implementation of strategies for the integration of land use, transportation, and air quality policies.

Objective 4.2—It is the objective of the City of Los Angeles to reduce vehicle trips and vehicle miles traveled associated with land use patterns.

Policy 4.2.2—Improve accessibility for the City's residents to places of employment, shopping centers, and other establishments.

Policy 4.2.3—Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.

Policy 4.2.4—Require that air quality impacts be a consideration in the review and approval of all discretionary projects.

Policy 4.2.5—Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.

In accordance with CEQA requirements, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary entitlements, and monitors and enforces implementation of such mitigation. The City uses the SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information for the environmental review of plans and development proposals within its jurisdiction.

(2) Toxic Air Contaminants (TAC)

(a) State

(i) Assembly Bill 1807

The California Air Toxics Program[6] was established in 1983, when the California Legislature adopted Assembly Bill (AB) 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or "listed," as a TAC in California. Since inception of the program, a number of such substances have been listed and include benzene, chloroform, formaldehyde, and particulate emissions from diesel-fueled engines, among others.[7] In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants (HAPs) as TACs.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of airborne toxic control measures (ATCMs), both for mobile and stationary sources. In 2004, CARB adopted an 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 addition to limiting exhaust from idling trucks, CARB adopted regulations on July 26, 2007 for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled, off-road diesel vehicles to reduce emissions by installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size, with the largest operators beginning compliance in 2014.[8]

The AB 1807 program is supplemented by the AB 2588 Air Toxics "Hot Spots" program, which was established by the California Legislature in 1987. Under this program,

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[6] *CARB, California Air Toxics Program, www.arb.ca.gov/toxics/toxics.htm, webpage last reviewed by CARB June 8, 2018.*

[7] *CARB, Toxic Air Contaminant Identification List, www.arb.ca.gov/toxics/id/taclist.htm, webpage last reviewed by CARB July 18, 2011.*

[8] *CARB, In-Use Off-Road Diesel-Fueled Fleets Regulation, www.arb.ca.gov/msprog/ordiesel/ordiesel.htm, webpage last reviewed by CARB June 27, 2018.*

facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks, if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

(ii) Air Quality and Land Use Handbook

CARB published the *Air Quality and Land Use Handbook* (the "CARB Handbook")on April 28, 2005, to serve as a general guide for considering health effects associated with siting sensitive receptors proximate to sources of TAC emissions.[9] The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day;[10] (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory was released in April of 2017 as a supplement to CARB's Handbook. It is intended to provide planners and other stakeholders involved in land use planning and decision-making with information on scientifically based strategies (e.g., solid barriers, vegetation buffers for pollutant dispersion, and indoor high efficiency filtration) to reduce exposure to traffic emissions near high-volume roadways in order to protect public health and promote equity and environmental justice.

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[9] *CARB, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.*

[10] *In November 2012, the Los Angeles City Planning Commission (CPC) issued an advisory notice (Zoning Information File No. 2427) regarding the siting of sensitive land uses within 1,000 feet of freeways. The CPC deemed 1,000 feet to be a conservative distance to evaluate projects that house populations considered to be more at-risk from the negative effects of air pollution caused by freeway proximity. The CPC advised that applicants of projects requiring discretionary approval, located within 1,000 feet of a freeway and contemplating residential units and other sensitive uses (e.g., hospitals, schools, retirement homes, etc.) perform a Health Risk Assessment (HRA). The Project Site is not within 1,000 feet of a freeway and does not involve the development of residential units or other sensitive uses and, therefore, would not be subject to this notice and does not warrant the preparation of an HRA relative to the Project Site's proximity to a freeway.*

(b) Regional

Pursuant to California AB 1807, which directs the CARB to identify substances as TACs and adopt ATCMs to control such substances, the SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities. Significant risk facilities are those facilities which have an increased cancer risk exceeding 10 in 1 million or a total hazard index exceeding 1.0. Examples include landfills, refineries and oil production facilities.

d. Existing Conditions

(1) Regional Air Quality

The Southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Air Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors, such as wind, sunlight, temperature, humidity, rainfall, and topography, affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential.

The greatest air pollution throughout the Air Basin occurs from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Air Basin vary with location, season, and time of day. O_3 concentrations, 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. Over the past 30 years, substantial progress has been made in reducing air pollution levels in Southern California. However, the Air Basin still fails to meet the national standards for O_3 and $PM_{2.5}$. In addition, Los Angeles County still fails to meet the national standard for lead.

SCAQMD has the responsibility for ensuring that all national and state ambient air quality standards are achieved and maintained throughout the Air Basin. To meet the standards, SCAQMD has adopted a series of AQMPs. The 2016 AQMP includes

strategies to ensure that rapidly approaching attainment deadlines are met and that public health is protected to the maximum extent feasible. The most significant air quality challenge in the Air Basin is to reduce NO_X emissions[11] sufficiently to meet the upcoming ozone standard deadlines. The 2016 AQMP provides a baseline year 2012 inventory of 512 tons per day (tpd) of NO_X and modeling results show that NO_X emissions are projected to be 214 tpd in the 8-hour ozone attainment year of 2031, due to continued implementation of already adopted regulatory actions ("baseline emissions"). The 2016 AQMP suggests that total Air Basin emissions of NO_X must be reduced to 96 tpd in 2031 to attain the 8-hour ozone standard. Although the existing air regulations and programs will continue to lower NO_X emissions in the region, an additional 55 percent in the year 2031 are necessary to attain the 8- hour ozone standard.[12,13]

The overall control strategy is an integral approach relying on fair-share emission reductions from federal, state and local levels. The 2016 AQMP is composed of stationary and mobile source emission reductions from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies and reductions from federal sources, which include aircraft, locomotives and ocean-going vessels. These strategies are to be implemented in partnership with CARB and U.S. EPA. In addition, SCAG recently approved their 2016–2040 RTP/SCS[14] that includes transportation programs, measures, and strategies generally designed to reduce VMT, which are contained in the AQMP.

Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the integration of regional land use programs, measures, and strategies. SCAQMD combines its portion of the Plan with those prepared by SCAG. The Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and Transportation Control Measures (TCMs), included as Appendix IV-C of the 2016 AQMP/SIP for the Basin, are based on SCAG's 2016–2040 RTP/SCS.

The 2016 AQMP forecasts the 2031 emissions inventories ''with growth'' based on SCAG's 2016–2040 RTP/SCS. The region is projected to see a 12-percent growth in population, 16-percent growth in housing units, 23-percent growth in employment, and 8-percent growth in vehicle miles traveled between 2012 and 2031.

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[11] *NOx emissions are a precursor to the formation of both ozone and secondary $PM_{2.5}$.*

[12] *Estimates are based on the inventory and modeling results and are relative to the baseline emission levels for each attainment year (see Final 2016 AQMP for detailed discussion).*

[13] *SCAQMD, Final 2016 AQMP, 2017, p. ES-2.*

[14] *SCAG, 2016–2040 RTP/SCS, Final 2016 RTP/SCS, http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx.*

Despite this regional growth, air quality has improved substantially over the years, primarily due to the impacts of air quality control programs at the local, state and federal levels. The graphic included in Figure IV.B-1 on page IV.B-18 shows the percent change in air quality along with demographic data for the 4-county region from the 2016 AQMP. In particular, Figure IV.B-1 illustrates the trends since 1990 of the 8-hour ozone levels, the 1-hour ozone levels, and annual average $PM_{2.5}$ concentrations (since 1999), compared to the regional gross domestic product, total employment and population. Human activity in the region has an impact on achieving reductions in emissions. However, the ozone and particulate matter levels continue to trend downward as the economy and population increase, demonstrating that it is possible to maintain a healthy economy while improving public health through air quality improvements.[15]

The SCAQMD has released the Multiple Air Toxins Exposure Study (MATES-IV).[16] The MATES-IV Study was aimed at estimating the cancer risk from toxic air emissions throughout the Air Basin by conducting a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize health risks for those living in the Air Basin. The MATES-IV Study concluded that the average carcinogenic risk from air pollution in the Air Basin is approximately 420 in one million over a 70-year duration. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors. Approximately 68 percent of the risk is attributed to diesel particulate emissions, approximately 21 percent to other toxics associated with mobile sources (including benzene, butadiene, and carbonyls), and approximately 11 percent of all carcinogenic risk is attributed to stationary sources (which include large industrial operations, such as refineries and metal processing facilities, as well as smaller businesses, such as gas stations and chrome plating).[17]

As part of the MATES-IV Study, the SCAQMD prepared a series of maps that shows 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' estimates represent the number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years) in parts of the area. The MATES-IV map is the most recently available map to represent existing conditions near the Project area. The estimated cancer risk for the vast majority of the urbanized area within the Air Basin ranges

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[15] *SCAQMD, Final 2016 AQMP, 2017 (p. 1-6). www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp.*

[16] *SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV) Final Report, May 2015.*

[17] *SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV) Final Report, May 2015.*

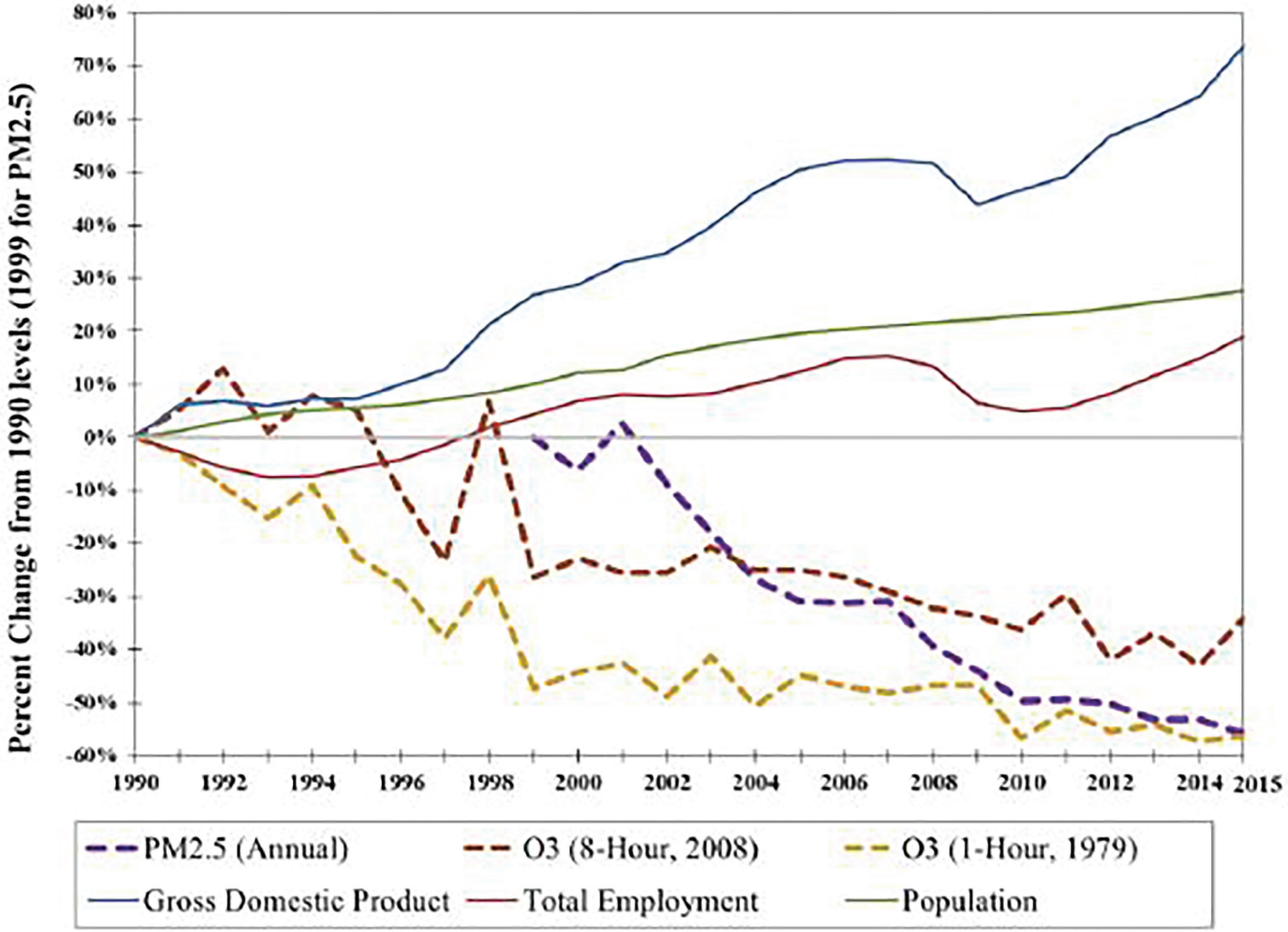

Figure IV.B-1
Ozone Trends

Source: SCAQMD, 2016.

from 200 to over 1,200 cancers per million over a 70-year duration.[18] Generally, the risk from air toxics is lower near the coastline and higher risks are concentrated near large diesel sources (e.g., freeways, airports, and ports).

(2) Local Air Quality

Air pollutant emissions are generated in the local vicinity by stationary and area-wide sources, such as commercial and industrial activity, space and water heating, landscape maintenance, consumer products, and mobile sources primarily consisting of automobile traffic. Motor vehicles are the primary source of pollutants in the local vicinity.

(a) Existing Pollutant Levels at Nearby Monitoring Stations

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin and has divided the Air Basin into 38 source receptor areas (SRAs) in which 31 monitoring stations operate. Figure IV.B-2 on page IV.B-20 shows the locations of the SRAs located in Los Angeles County. The Project Site is located within SRA 1, which covers the Central Los Angeles area. The monitoring station most representative of the Project Site is the North Main Street Station, located at 1630 North Main Street in the City of Los Angeles, approximately six miles southeast of the Project Site. Criteria pollutants monitored at this station include PM_{10}, $PM_{2.5}$, O_3, CO, NO_2, lead, and sulfate. Table IV.B-2 on page IV.B-21 identifies the national and state ambient air quality standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured at these stations through the period of 2016–2018.

(b) Existing Health Risk in the Surrounding Area

As shown in Figure IV.B-3 on page IV.B-23, based on the MATES-IV model, the calculated cancer risk in the Project area is approximately 1,150 in one million.[19] The cancer risk in this area is predominately related to nearby sources of diesel particulate (e.g., the US-101 freeway). Other sources in the Project vicinity include emergency generators, char broilers, and auto repair shops. In general, the risk at the Project Site is comparable with other urbanized areas in Los Angeles.

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[18] *SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV), MATES IV Interactive Carcinogenicity Map, 2015.*

[19] *SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV), MATES IV Interactive Carcinogenicity Map, 2015.*

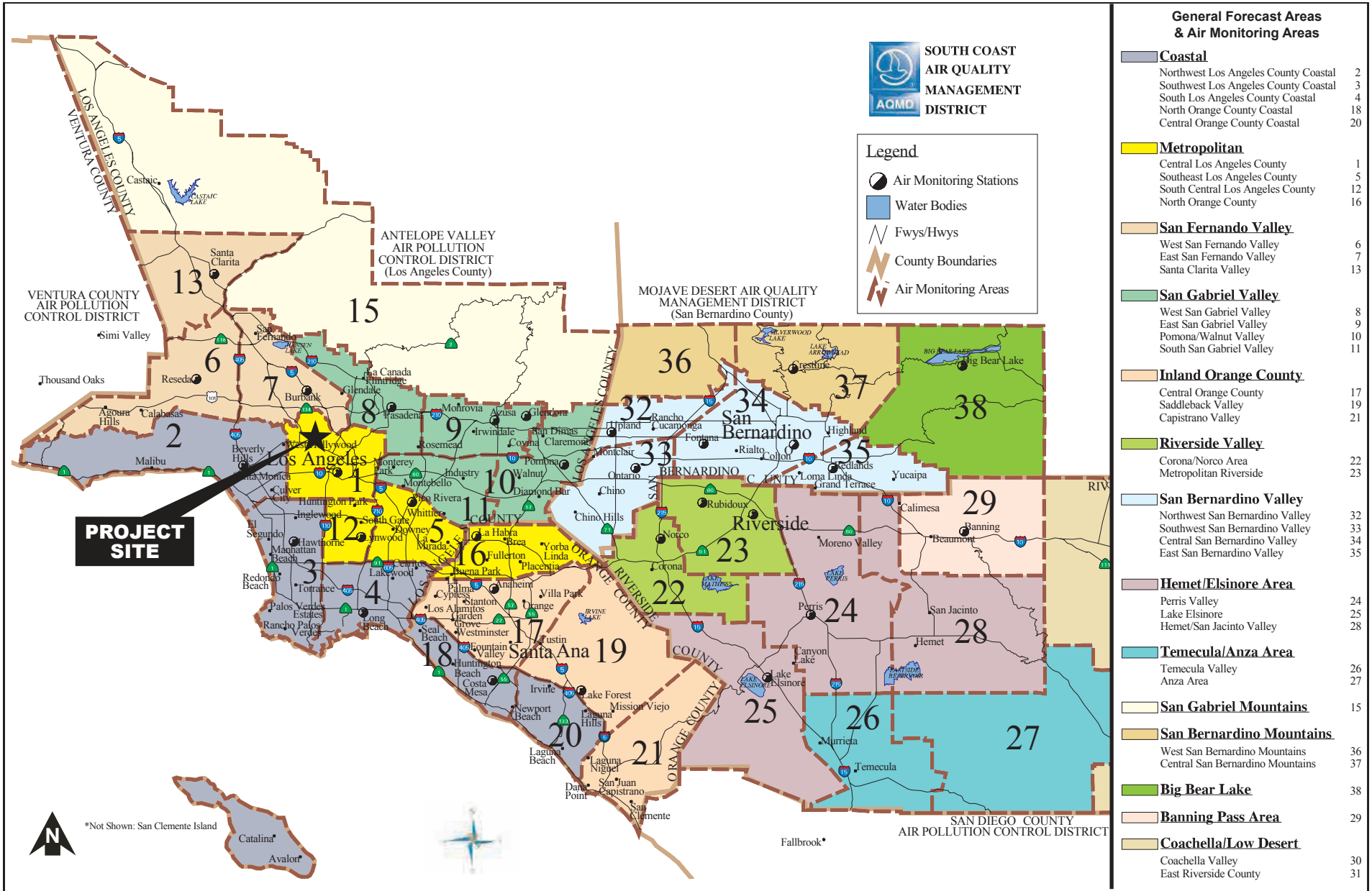

Figure IV.B-2
SCAQMD SRAs

Source: Sierra Wade Associates, 2010.

Table IV.B-2
Summary of Ambient Air Quality in the Project Vicinity

Pollutant	Year		
	2016	2017	2018
Ozone (O_3)			
Maximum 1-hour Concentration (ppm)	0.10	0.12	0.10
Days exceeding CAAQS (0.09 ppm)	2	6	2
Maximum 8-hour Concentration (ppm)	0.08	0.09	0.07
Days exceeding NAAQS (0.070 ppm)	4	14	4
Days exceeding CAAQS (0.07 ppm)	4	14	4
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour Concentration (µg/m^3)	67	96	81
Days exceeding NAAQS (150 µg/m^3)	0	0	0
Days exceeding CAAQS (50 µg/m^3)	18	41	31
Annual Arithmetic Mean (µg/m3)	32	34	34
Does measured AAM exceed CAAQS (20 µg/m^3)?	**Yes**	**Yes**	**Yes**
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour Concentration (µg/m^3)	44	49	44
Days exceeding NAAQS (35 µg/m^3)	2	5	3
Annual Arithmetic Mean (µg/m^3)	12	12	13
Does measured AAM exceed NAAQS (12 µg/m^3)?	No	No	**Yes**
Does measured AAM exceed CAAQS (12 µg/m^3)?	No	No	**Yes**
Carbon Monoxide (CO)			
Maximum 1-hour Concentration (ppm)	2	2	2
Days exceeding NAAQS (35.0 ppm)	0	0	0
Days exceeding CAAQS (20.0 ppm)	0	0	0
Maximum 8-hour Concentration (ppm)	1	2	2
Days exceeding NAAQS and CAAQS (9 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour Concentration (ppm)	0.06	0.08	0.07
Days exceeding CAAQS (0.18 ppm)	0	0	0
Annual Arithmetic Mean (ppm)	0.02	0.02	0.02
Does measured AAM exceed NAAQS (0.0534 ppm)?	No	No	No
Does measured AAM exceed CAAQS (0.03 ppm)?	No	No	No
Sulfur Dioxide (SO_2)			
Maximum 1-hour Concentration (ppm)	0.01	0.01	0.01
Days exceeding CAAQS (0.25 ppm)	0	0	0
Maximum 24-hour concentration (ppm)	N/A	N/A	N/A
Days exceeding CAAQS (0.04 ppm)	0	0	0
Days exceeding NAAQS (0.14 ppm)	0	0	0
Annual Arithmetic Mean (ppm)	N/A	N/A	N/A
Does measured AAM exceed NAAQS (0.030 ppm)?	N/A	N/A	N/A

Table IV.B-2 (Continued)
Summary of Ambient Air Quality in the Project Vicinity

Pollutant	Year		
	2016	2017	2018
Lead			
Maximum 30-day Average Concentration (µg/m^3)	0.02	0.02	0.01
Does measured concentration exceed NAAQS (1.5 µg/m^3)	No	No	No
Maximum Calendar Quarter Concentration (µg/m^3)	0.01	0.01	0.01
Does measured concentration exceed CAAQS (1.5 µg/m^3)	No	No	No
Sulfate			
Maximum 24-hour Concentration (µg/m^3)	6	5	5
Does measured concentration exceed CAAQS (25 µg/m^3)	No	No	No

AAM = annual arithmetic mean
ppm = parts per million by volume
µg/m^3 = micrograms per cubic meter
Source: South Coast Air Quality Management District Ambient Monitoring Data (2016–2018), www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year, accessed February 14, 2020.

Some population groups including children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to air pollution than others. Sensitive land uses in the Project vicinity include residential uses discussed above and are shown in Figure IV.B-4 on page IV.B-24. All other air quality sensitive receptors are located at greater distances from the Project Site, and would be less impacted by Project emissions. Therefore, Project's local (ambient)impacts are quantified only for the sensitive receptors depicted in Figure IV.B-4.

(d) Existing Project Site Emissions

The Project site is an existing major motion picture and television studio. Existing development within the Project Site includes 616,604 square feet of floor area, consisting of 378,978 square feet of creative office space, 56,050 square feet of production support, 175,058 square feet of sound stages, and 6,516 square feet of restaurant space. Currently, activities on the Project Site include the production of motion pictures, television, and commercials on indoor and outdoor sets, and in production offices. These activities include pre-production and post-production activities, and related administrative functions. The Project Site operates 24 hours a day. Filming activities may occur at any time of day and any day of the week, including evenings and weekends. Most filming is closed to the public.

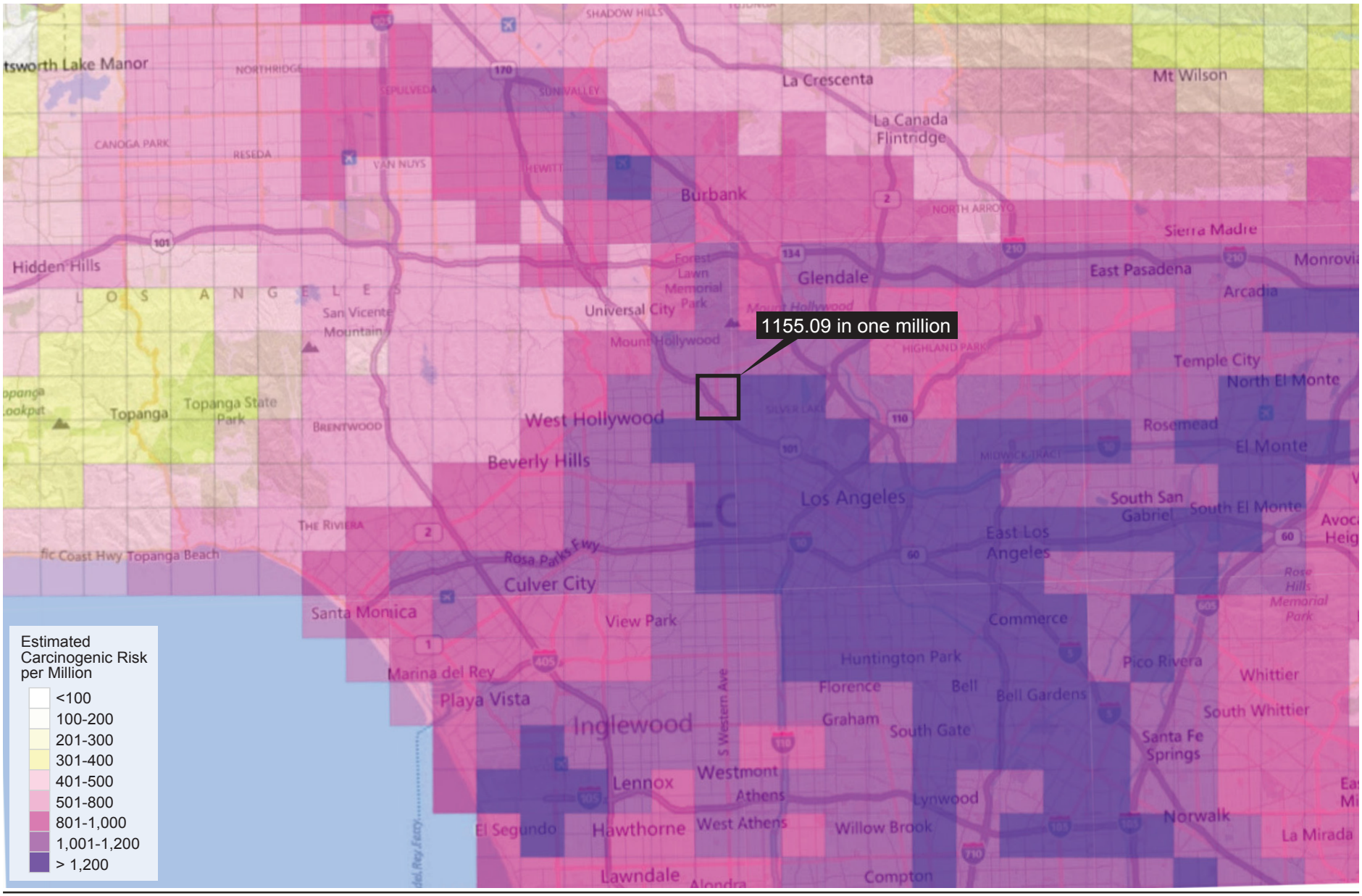

Figure IV.B-3
MATES IV Total Cancer Risk for Project Area

Source: South Coast AQMD, 2018.

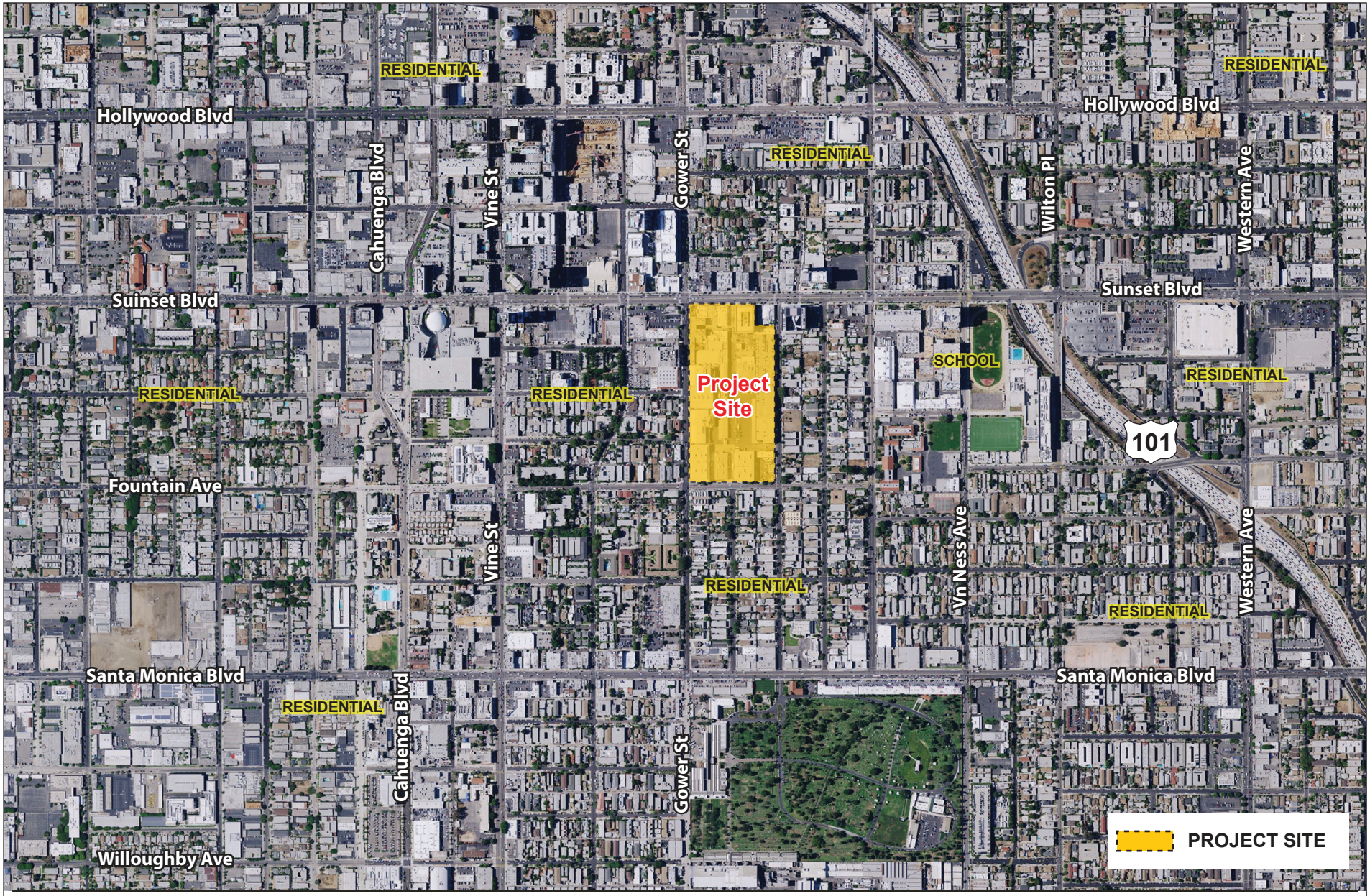

Figure IV.B-4
Air Quality Sensitive Receptor Locations

Source: Apple Maps, 2017; Eyestone Environmental, 2018.

(c) Surrounding Uses

As shown in Figure IV.B-4 on page IV.B-24, the land uses surrounding the Project Site include retail and restaurant uses within the Sunset Gower Plaza, Siren Studios, a motel, and other commercial/retail uses to the north, along Sunset Boulevard; the EastWest Studios, Emerson College, and single- and multi-family residential uses to the east, along Gordon Street; single- and multi-family residential and commercial uses to the south, along Fountain Avenue; and commercial, retail, restaurant, and multi-family residential uses to the west, along Gower Street.

Area source emissions are generated by maintenance equipment, landscape equipment, and use of products that contain solvents. Energy source emissions are typically associated with building natural gas usage. Mobile source emissions are generated by motor vehicle trips to and from the Project Site. Table IV.B-3 below presents an estimate of the existing emissions within the Project Site.

Table IV.B-3
Estimated Daily Regional Operational Criteria Pollutant Emissions—Baseline[a]

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	14	<1	<1	<1	<1	<1
Energy	<1	2	1	<1	<1	<1
Mobile	8	37	102	<1	21	6
Stationary	<1	1	<1	<1	<1	<1
Total Existing Emissions[a]	23	40	104	<1	22	6

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.*

Source: Eyestone Environmental, 2020.

3. Project Impacts

a. Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G, the Project would have a significant impact related to air quality if it would:

Threshold (a): Conflict with or obstruct implementation of the applicable air quality plan.

Threshold (b): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Threshold (c): Expose sensitive receptors to substantial pollutant concentrations.

Threshold (d): Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

For this analysis, the Appendix G Thresholds listed above are relied upon. The analysis utilizes factors and considerations identified in the City's 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions. The L.A. CEQA Thresholds Guide identifies the following criteria to evaluate air quality impacts:

(1) Construction

(a) Combustion Emissions from Construction Equipment

- Type, number of pieces and usage for each type of construction equipment;
- Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and
- Emission factors for each type of equipment.

(b) Fugitive Dust—Grading, Excavation and Hauling

- Amount of soil to be disturbed on-site or moved off-site;
- Emission factors for disturbed soil;
- Duration of grading, excavation and hauling activities;
- Type and number of pieces of equipment to be used; and
- Projected haul route.

(c) Fugitive Dust—Heavy-Duty Equipment Travel on Unpaved Road

- Length and type of road;
- Type, number of pieces, weight and usage of equipment; and
- Type of soil.

(d) Other Mobile Source Emissions

- Number and average length of construction worker trips to Project Site, per day; and
- Duration of construction activities.

(2) Operation

- Operational emissions exceed 10 tons per year of volatile organic gases or any of the daily thresholds presented below (as reprinted from the CEQA Air Quality Handbook):

Pollutant	Significance Threshold (lbs/day)
ROG	55
NO_X	55
CO	550
PM_{10}	150
SO_X	150

- Either of the following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:
  - The proposed project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively; or
  - The incremental increase due to the project is equal to or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard.
- The project creates an objectionable odor at the nearest sensitive receptor.

(3) Toxic Air Contaminants

The determination of significance shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework for the toxic material(s) and process(es) involved;
- The proximity of the TACs to sensitive receptors;
- The quantity, volume and toxicity of the contaminants expected to be emitted;

- The likelihood and potential level of exposure; and
- The degree to which project design will reduce the risk of exposure.

(4) SCAQMD's CEQA Air Quality Handbook

To assist in answering the Appendix G Threshold questions and factors identified in the City's 2006 L.A. CEQA Thresholds Guide for purposes of this analysis, the City of Los Angeles utilizes the thresholds of significance in the SCAQMD's *CEQA Air Quality Handbook, Chapter 6*, as identified below, to assess the significance of the Project's estimated air quality impacts. Specifically, Table IV.B-4 on page IV.B-29 shows SCAQMD's currently recommended significance thresholds, which provide numerical thresholds for evaluating the significance of a project's estimated air quality emissions.

(a) Construction

Based on the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*,[20] the Project would have a significant impact if the Project's estimated construction emissions would cause any of the following to occur:

- Emissions from the Project's direct and indirect sources would exceed any of the SCAQMD significance threshold levels identified in Table IV.B-4.
- Maximum on-site daily localized emissions exceed the Localized Significance Threshold (LST), resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 ppm [23,000 µg/m^3] over a 1-hour period or 9.0 ppm [10,350 µg/m^3] averaged over an 8-hour period) and NO_2 (0.18 ppm [338.4 µg/m^3] over a 1-hour period, 0.1 ppm [188 µg/m^3] over a three-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm [56.4 µg/m^3] averaged over an annual period).
- Maximum on-site localized PM_{10} or $PM_{2.5}$ emissions during construction exceed the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed the incremental 24-hr threshold of 10.4 µg/m^3 or 1.0 µg/m^3 PM_{10} averaged over an annual period.

[20] *SCAQMD, CEQA Air Quality Handbook, April 1993, Chapter 6.*

Table IV.B-4
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds[a]		
Pollutant	**Construction[b]**	**Operation[c]**
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants		
NO_2 1-hour average Annual Arithmetic Mean	SCAQMD is in attainment; project is significant if It causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average Annual Average	10.4 μg/m3 (construction) & 2.5 μg/m3 (operation) 1.0 μg/m3	
$PM_{2.5}$ 24-hour average	10.4 μg/m3 (construction) & 2.5 μg/m3 (operation)	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal—99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day average Rolling 3-month average	1.5 μg/m3 (state) 0.15 μg/m3 (federal)	

lbs/day = pounds per day

[a] *SCAQMD CEQA Handbook (SCAQMD, 1993), Pages 6-2 and 6-3.*

[b] *Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).*

[c] *For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.*

Source: South Coast Air Quality Management District, 2015.

(b) Operation

Based on the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*,[21] the Project would have a significant impact if the Project's operational estimated emissions would cause any of the following to occur:

- Emissions from the Project's direct and indirect sources would exceed any of the SCAQMD significance threshold levels identified in Table IV.B-4 on page IV.B-29.

- Maximum on-site daily localized emissions exceed the LST, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 parts per million (ppm) over a 1-hour period or 9.0 ppm averaged over an 8-hour period) and NO_2 (0.18 ppm over a 1-hour period, 0.1 ppm over a 3-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm averaged over an annual period).[22]

- Maximum on-site localized operational PM_{10} and $PM_{2.5}$ emissions exceed the incremental 24-hr threshold of 2.5 $\mu g/m^3$ or 1.0 $\mu g/m^3$ PM_{10} averaged over an annual period.[23]

- The Project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 ppm, respectively; or

- The Project creates an odor nuisance pursuant to SCAQMD Rule 402 (i.e., objectionable odor at the nearest sensitive receptor).

(c) Toxic Air Contaminants

Based on the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*, the Project would have a significant toxic air contaminant impact, if:[24]

- The Project emits carcinogenic or toxic air contaminants that exceed the maximum incremental chronic and acute cancer risk as provided in Table IV.B-4 on page IV.B-29.

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[21] *SCAQMD, CEQA Air Quality Handbook, April 1993.*

[22] *SCAQMD, LST Methodology.*

[23] *SCAQMD, Final-Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds, October 2006.*

[24] *SCAQMD, CEQA Air Quality Handbook, April 1993, Chapters 6 and 10.*

In assessing impacts related to TACs in this section, the City will use Appendix G as the thresholds of significance. The criteria identified above from the *L.A. CEQA Thresholds Guide* will be used where applicable and relevant to assist in analyzing the Appendix G thresholds. In addition, the following criteria set forth in SCAQMD's *CEQA Air Quality Handbook* serve as quantitative air quality standards to be used to evaluate project impacts under Appendix G thresholds:[25]

- The Project results in the exposure of sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0.[26] For projects with a maximum incremental cancer risk between 1 in one million and 10 in one million, a project would result in a significant impact if the cancer burden exceeds 0.5 excess cancer cases.

(d) Consistency with Applicable Air Quality Plans

Section 15125 of the State CEQA Guidelines requires an analysis of project consistency with applicable governmental plans and policies. In accordance with the SCAQMD's *CEQA Air Quality Handbook*,[27] the following criteria are used to evaluate the Project's consistency with the SCAQMD and SCAG regional plans and policies, including the AQMP:

- Criterion 1: Will the Project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations;
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?
- Criterion 2: Will the Project exceed the assumptions utilized in preparing the AQMP?
  - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
  - Does the Project include air quality mitigation measures; or

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[25] *SCAQMD, CEQA Air Quality Handbook, April 1993, Chapters 6 and 10.*

[26] *SCAQMD, Air Quality Significance Thresholds. March 2015.*

[27] *SCAQMD, CEQA Air Quality Handbook, April 1993, Chapter 12.*

- To what extent is Project development consistent with the AQMP control measures?

In addition, the Project's consistency with the City of Los Angeles General Plan Air Quality Element is discussed.

(e) Cumulative Impacts

Based on SCAQMD guidance, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment.[28] . As discussed in the SCAQMD's White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (August 2003):

> *As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR…. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.*[29]

The cumulative analysis of air quality impacts within this Draft EIR follows SCAQMD's guidance such that construction or operational Project emissions will be considered cumulatively considerable if Project-specific emissions exceed an applicable SCAQMD recommended daily threshold.

b. Methodology

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate the air quality issues associated with new development projects within the Air Basin, such as the Project. Instead, the SCAQMD published the *CEQA Air Quality Handbook* in November 1993 to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects proposed in the Air Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in

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[28] *Jillian Wong, SCAQMD CEQA Specialist, personal communication, August 8, 2016.*

[29] *SCAQMD, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003, Appendix D.*

EIRs and was used extensively in the preparation of this analysis. The SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*.[30]

In order to assist the CEQA practitioner in conducting an air quality analysis in the interim while the replacement *Air Quality Analysis Guidance Handbook* is being prepared, supplemental guidance/information is provided on the SCAQMD website (www.aqmd.gov/ceqa/hdbk.html) and includes: (1) EMFAC on-road vehicle emission factors; (2) background CO concentrations; (3) localized significance thresholds; (4) mitigation measures and control efficiencies; (5) mobile source toxics analysis; (6) off-road mobile source emission factors; (7) $PM_{2.5}$ significance thresholds and calculation methodology; and (8) updated SCAQMD Air Quality Significance Thresholds. The SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

The SCAQMD has also adopted land use planning guidelines in the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions.[31] SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity of freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

This analysis focuses on the potential change in the air quality environment due to implementation of the Project. Air pollutant emissions would result from both construction and operation of the Project. Specific methodologies used to evaluate these emissions are discussed below.

(1) Construction Emissions Methodology

Construction of the Project has the potential to generate temporary pollutant emissions through the use of heavy-duty construction equipment, such as excavators and

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[30] *SCAQMD, Air Quality Analysis Handbook, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook, accessed February 14, 2020.*

[31] *SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005.*

cranes, and through vehicle trips generated from workers and haul and delivery 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. 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. The assessment of construction air quality impacts considers each of these potential sources.

(a) Regional Emissions

The Project's "regional" emissions refer to emissions that will be evaluated based on regional significance thresholds established by the SCAQMD, as discussed above. Daily regional emissions during construction are estimated by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying mobile source and fugitive dust emissions factors. The emissions are estimated using CalEEMod (Version 2016.3.2) software, an emissions inventory software program recommended by SCAQMD. The CalEEMod model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with SCAQMD and received input from other California air districts, and is currently used by numerous lead agencies in the Los Angeles area and within the state for quantifying the emissions associated with development projects undergoing environmental review, including by the City of Los Angeles.

CalEEMod is based on outputs from Off-road Emissions Inventory Program model[32] (OFFROAD) and EMission FACtor model[33] (EMFAC), which are emissions estimation models developed by CARB, and used to calculate emissions from construction activities, including off- and on-road vehicles, respectively. CalEEMod also relies upon known emissions data associated with certain activities or equipment (often referred to as "default" data, values or factors) that can be used if site-specific information is not available. CalEEMod contains default values to use in each specific local air district region. Appropriate statewide default values can be used, if regional default values are not defined. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Construction tasks were aggregated to reflect overlapping tasks and identify the reasonably expected maximum

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[32] *California Air Resources Board, 2017 Off-road Diesel Emission Factors, www.arb.ca.gov/msei/ordiesel.htm, accessed February 14, 2020.*

[33] *California Air Resources Board, EMFAC 2014, www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles, accessed February 14, 2020.*

construction emissions occurring over the course of Project construction. To be conservative, this analysis evaluates the Project's air quality impacts during construction based on reasonably expected maximum construction emissions even though such emissions would not occur throughout the entire construction phase. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix B of this Draft EIR.

(b) Localized Emissions

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's localized significance thresholds (LST) methodology, which uses on-site mass emissions rate look-up tables and Project-specific modeling, where appropriate, to assess whether the Project's local emissions would exceed the SCAQMD's significance thresholds, as described above.[34] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X; CO; PM_{10}; and $PM_{2.5}$.[35] SCAQMD does not provide an LST for SO_2 since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant as on-site activities during construction and operation do not include activities that emit high levels of SO_2. Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD LST for VOCs. Due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. The SCAQMD developed mass rate look-up tables for each source receptor area and to determine whether or not a project may generate significant adverse localized air quality impacts. SCAQMD provides LST mass rate look-up tables for projects with active construction areas that are less than or equal to 5 acres. For projects that exceed 5 acres, such as the Project, the 5-acre LST look-up values can be used as a screening tool to determine which pollutants require detailed analysis.[36] This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and would over-predict potential localized impacts (i.e., more pollutant emissions occurring within a smaller area, resulting in greater concentrations). If the project exceeds the LST look-up values, then the SCAQMD recommends that project-specific air quality modeling must be

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[34] *SCAQMD, LST Methodology Appendix C—Mass Rate LST Look-Up Table, October 2009.*

[35] *SCAQMD, LST Methodology, p. 1-4.*

[36] *Telephone Conversation, Ian MacMillan, SCAQMD CEQA Program Supervisor, November 10, 2011.*

performed to determine if the Project's local emissions exceed applicable significance thresholds.

(2) Operation Emissions Methodology

(a) Regional Emissions

Analysis of the Project's impact on regional air quality during long-term Project operations (i.e., after construction is complete) takes into consideration four types of sources: (1) area; (2) energy; (3) mobile; and (4) stationary. Area source emissions are generated by, among other things, landscape equipment, fireplaces, and the use of consumer products. Energy source emissions are generated as a result of activities in buildings for which natural gas is used (e.g., natural gas for heat or cooking). Mobile source emissions are generated by the increase in motor vehicle trips to and from the Project Site associated with operation of the Project. Stationary source emissions are generated from proposed emergency generators during routine maintenance/testing.

Similar to construction, SCAQMD's CalEEMod model was used to estimate Project emissions during operation. Mobile-source emissions were calculated using CalEEMod. CalEEMod default VMT was bypassed to account for the Project-related VMT provided in the Transportation Analysis for the Project, which was conducted consistent with Los Angeles Department of Transportation's (LADOT's) *Transportation Impact Study Guidelines*.[37] Consistent with these guidelines, the VMT Calculator was developed by the City and LADOT to comply with SB 743, which requires lead agencies to adopt VMT criteria to determine transportation related impacts.

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 California Commercial End Use Survey data set, which provides energy demand by building type and climate zone. Emissions associated with use of emergency generators were calculated using CalEEMod, in which emission factors are based on Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel Engines) from EPA's AP-42: Compilation of Air Pollutant Emission Factors. The emissions are based on the horsepower rating of the diesel generator and the number of hours operated per year for testing purposes.

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[37] *Gibson Transportation Consulting, Inc., CEQA Thresholds Analysis for the Sunset Gower Studios Preservation and Enhancement Plan, Hollywood, California, February 2020.*

To determine if a significant air quality impact would occur, the net increase in regional operational emissions generated by the Project was compared against the SCAQMD's significance thresholds.[38] To be conservative, this analysis evaluates the Project's air quality impacts during operations based on reasonably expected maximum operational emissions even though such emissions would not occur throughout the entire operational phase. Refer to Appendix B of this Draft EIR for additional information regarding methodology.

(b) Localized Emissions

(i) On-Site Emissions

Localized impacts from Project operations include calculation of on-site emissions (e.g., combustion from natural gas usage) using SCAQMD's recommended CalEEMod and evaluation of these emissions consistent with the SCAQMD's LST methodology discussed above.

(ii) Off-Site Emissions

Potential localized CO concentrations from induced traffic at nearby intersections are also addressed, consistent with the methodologies and assumptions used in the consistency analysis provided in the 2003 AQMP.

It has long been recognized that CO exceedances are caused by vehicular emissions,[39] primarily when idling at intersections.[40,41] Accordingly, vehicle emissions standards have become increasingly more stringent. Before the first vehicle emission regulations, cars in the 1950s were typically emitting about 87 grams of CO per mile.[42] Currently, the CO standard in California is a maximum of 3.4 grams/mile for passenger cars (with provisions for certain cars to emit even less).[43] With the turnover of older

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[38] *SCAQMD, SCAQMD Air Quality Significance Thresholds, revised March 2015. SCAQMD based these thresholds, in part, on the federal Clean Air Act and, to enable defining "significant" for CEQA purposes, defined the setting as the South Coast Air Basin. (See SCAQMD, CEQA Air Quality Handbook, April 1993, pp. 6-1–6-2).*

[39] *USEPA, Air Quality Criteria for Carbon Monoxide. EPA 600/P-099/001F, 2000.*

[40] *SCAQMD, CEQA Air Quality Handbook, April 1993. Section 4.5.*

[41] *SCAQMD. Air Quality Management Plan, 2003.*

[42] *USEPA, Timeline of Major Accomplishments in Transportation, Air Pollution, and Climate Change, www.epa.gov/air-pollution-transportation/timeline-major-accomplishments-transportation-air-pollution-and-climate, accessed February 14, 2020.*

[43] *CARB, California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-duty Trucks, and Medium-duty Vehicles, amended September 27, 2010.*

vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the Air Basin have steadily declined.

The analysis prepared for CO attainment in the Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan).[44] As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of the 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which had a daily traffic volume of approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm, which indicates that the most stringent 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day.[45] The AQMP CO hotspots modeling also took into account worst-case meteorological conditions and background CO concentrations. The Los Angeles County Metropolitan Transportation Authority (Metro) evaluated the level of service (LOS) in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be Level E at peak morning traffic and Level F at peak afternoon traffic.[46,47] As an initial screening step, if a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hot spot analysis. If a project would potentially result in a CO hotspot based on the initial screening, detailed modeling may be performed using

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[44] *SCAQMD, Federal Attainment Plan for Carbon Monoxide, 1992.*

[45] *Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).*

[46] *The Metropolitan Transportation Authority measured traffic volumes and calculated the LOS for the intersection Wilshire Blvd/ Sepulveda Ave. which is a block west along Wilshire Blvd., still east of Highway 405.*

[47] *Metropolitan Transportation Authority, Congestion Management Program for Los Angeles County, 2004, Exhibit 2-6 and Appendix A.*

California LINE Source Dispersion Model, version 4 (CALINE4), which is a model used to assess air quality impacts near transportation facilities (i.e., roadways, intersections, street canyons, and parking facilities).

(3) Toxic Air Contaminants Impacts (Construction and Operations)

Potential TAC impacts are initially evaluated by conducting a qualitative analysis consistent with SCAQMD guidance and the CARB Handbook. The qualitative analysis consists of reviewing the Project to identify any new or modified TAC emissions sources and evaluating the potential for such sources to cause significant TAC impacts. If the qualitative evaluation determines the potential for significant impacts from a new TAC source, or modification of an existing TAC emissions source, a more detailed dispersion analysis is conducted to evaluate estimated Project TAC emissions against the applicable SCAQMD significance thresholds based on downwind sensitive receptor locations.

c. Project Design Features

The following project design feature is proposed with respect to air quality:

Project Design Feature AIR-PDF-1: Where power poles are available, electricity from power poles and/or solar powered generators rather than temporary diesel or gasoline generators shall be used during construction.

In addition, the Project would incorporate project design features to support and promote environmental sustainability as discussed under Section IV.F, Greenhouse Gas Emissions, of this Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce criteria air pollutants discussed herein.

d. Analysis of Project Impacts

Threshold (a): Would the Project conflict with or obstruct implementation of the applicable air quality plan?

(1) Impact Analysis

(a) SCAQMD CEQA Air Quality Handbook Policy Analysis

The following analysis addresses the Project's consistency with applicable SCAQMD and SCAG policies, inclusive of regulatory compliance. In accordance with the procedures established in the SCAQMD's *CEQA Air Quality Handbook*, Chapter 12, the

following criteria are required to be addressed in order to determine the Project's consistency with applicable SCAQMD and SCAG policies:

- Would the project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations; or
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- Would the project exceed the assumptions utilized in preparing the AQMP?
  - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
  - Does the Project include air quality mitigation measures; or
  - To what extent is Project development consistent with the AQMP control measures?

(i) Criterion 1

With respect to the first criterion, as discussed under the analysis for Threshold (c) below, localized concentrations of NO_2 as NO_X, CO, PM_{10}, and $PM_{2.5}$ have been analyzed for the Project. Due to California Low Sulfur Diesel Fuel requirements, calculations shown below demonstrate that SO_2 emissions would be negligible during construction and long-term operations, and, therefore, would not have the potential to cause or affect a violation of the SO_2 ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. Due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

As shown in Table IV.B-6 on page IV.B-51 in the analysis below, the increases in PM_{10} and $PM_{2.5}$ emissions during construction would not exceed the SCAQMD-recommended significance thresholds at sensitive receptors in proximity to the Project Site. Additionally, the Project's maximum potential NO_X and CO daily emissions during construction were analyzed to assess potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or affect a violation of an applicable ambient air quality standard. As shown in Table IV.B-7 on page IV.B-53 in the analysis below, **NO_X and CO would not exceed the SCAQMD-recommended localized significance thresholds. Therefore, Project construction would not result in a significant impact with regard to localized air quality.**

Because the Project would not introduce any substantial stationary sources of emissions, CO is the preferred benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations.[48] As discussed below on page IV.B-54, no intersections would require a CO hotspot analysis, and impacts would be less than significant. **Therefore, the Project would not increase the frequency or severity of an existing CO violation or cause or contribute to new CO violations.**

An analysis of potential localized operational impacts from on-site activities was also conducted. As shown in Table IV.B-9 on page IV.B-57 in the analysis below, localized NO_2 as NO_X, CO, PM_{10}, and $PM_{2.5}$ operational impacts would be less than significant. **Therefore, the Project would not increase the frequency or severity of an existing violation or cause or contribute to new violations for these pollutants and would also not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP.**

(ii) Criterion 2

With respect to the second criterion for determining consistency with AQMP growth assumptions, As discussed below, the Project is consistent with growth assumptions in the AQMP, which accounts for construction and operational emissions associated with regional economic and population growth. The projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016–2040 RTP/SCS regarding population, housing, and growth trends. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with applicable population, housing, and employment growth projections; (2) Project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies.[49] The following discussion provides an analysis with respect to each of these three criteria.

- Is the project consistent with the population, housing, and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP, in part, if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2016 AQMP, two sources of data form the basis for the projections of air pollutant emissions: the City of Los Angeles General Plan and SCAG's *2016–2040 RTP/SCS*.

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[48] *SCAQMD, CEQA Air Quality Handbook, April 1993, Chapter 12.*

[49] *SCAQMD, CEQA Air Quality Handbook, April 1993, p. 12-1.*

As described in Section IV.G, Land Use and Planning, of this Draft EIR, the General Plan of the City of Los Angeles serves as a comprehensive, long-term plan for future development of the City. The 2016–2040 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review.

With regards to operation, the Project Site is located within the highly urbanized Hollywood Community Plan Area, which is already fully developed with homes and businesses. The Project would not introduce new homes or a substantial number of businesses since the Project calls for the continuation of the commercial uses at the existing Sunset Gower Studios. Even if the new employment opportunities generated by the proposed creative office, production support, and sound stage uses, which is estimated to be approximately 2,500 employees, could induce population growth, the increase in population would not be substantial since not all employees would necessarily move close to the Project Site. Based on SCAG projections, an increase of 2,500 people would represent 1.2 percent of the population growth in the City of LA between 2018 and 2028. Some employment opportunities may be filled by people already residing in the vicinity of the Project Site, and other persons would commute to the Project Site from other communities in and outside of the City. In addition, locating new employment within infill areas near transit is consistent with the RTP/SCS and AQMP goals.

As the Project would not result in substantial population growth by proposing new homes and businesses, development of the Project would be within the forecasted population and employment for the City of Los Angeles Subregion. Accordingly, the Project's generation of residents and employees would be consistent with, within the parameters of, and not exceed the population and employment projections contained in the 2016–2040 RTP/SCS. Refer to Section IV.G, Land Use and Planning, of this Draft EIR, for additional information regarding consistency with the 2016–2040 RTP/SCS.

- Does the project implement feasible air quality mitigation measures?

The Project would comply with all applicable regulatory standards (e.g., SCAQMD Rule 403, etc.) as required by the SCAQMD, as summarized above. In addition, Mitigation Measure AIR-MM-1 requires the use of off-road diesel equipment that meets USEPA Tier 4 Final off-road emissions standards during peak periods of construction, where feasible. The Project also would incorporate project design features to support and promote environmental sustainability as discussed in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce the criteria air pollutants discussed herein. Furthermore, with compliance with the regulatory requirements identified above and in

Section IV.F, Greenhouse Gas Emissions, of this Draft EIR, no significant air quality impacts would occur.

- To what extent is project development consistent with the control measures set forth in the AQMP?

With regard to land use developments, such as the Project, the AQMP's land use policies focus on the reduction of vehicle trips and vehicle miles traveled (VMT). As discussed in Section IV.G, Land Use and Planning, of this Draft EIR, the Project would serve to implement a number of land use policies of the City of Los Angeles and SCAG.

The Project would be designed and constructed to incorporate features to support and promote environmental sustainability. The Project represents an infill development within an existing urbanized area that would preserve and enhance most of the existing buildings on the Sunset Gower Studios and develop new studio-related creative office, production office/production support and storage uses within a High Quality Transit Areas (HQTA).[50] The Project Site is also located approximately 0.5-mile southwest of the Metro Hollywood/Vine Station. In addition, the Project Site is served by several bus stops located along Sunset Boulevard and Gower Street, including Metro bus line 2, Los Angeles Department of Transportation (LADOT) Downtown Area Shuttle (DASH) Hollywood, and DASH Hollywood/Wilshire. The Project would also provide required short- and long-term bicycle parking spaces in compliance with the requirements of the Los Angeles Municipal Code (LAMC).

As further discussed under Section IV.F, Greenhouse Gas Emissions, of this Draft EIR, the Project design includes characteristics that would reduce trips and VMT as compared to a standard project within the air basin as measured by the air quality model (CalEEMod). While these Project characteristics primarily reduce greenhouse gas emissions, they would also reduce criteria air pollutants discussed herein. These relative reductions in vehicle trips and VMT from a standard project within the air basin help quantify the criteria air pollutant emissions reductions achieved by locating the Project in any infill, HQTA area that promotes alternative modes of transportation.

Previously, trip generation for land uses was calculated based on survey data collected by the Institute of Transportation Engineers (ITE). However, these ITE trip generation rates were based on data collected at suburban, single-use, free standing sites, which may not be representative of urban mixed-use environments. Beginning in 2019, the

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[50] *Defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.*

USEPA has sponsored a study to collect travel survey data from mixed-use developments in order provide a more representative trip generation rate for multi-use sites. Results of the USEPA survey indicate that trip generation and VMT are affected by factors such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the EPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use developments.[51] The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. As shown in Appendix B, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 26-percent reduction in overall VMT and resultant pollutant emissions. Furthermore, with implementation of Mitigation Measure TR-MM-1, implementation of a TDM program, the Project would result in a 32-percent reduction in overall VMT and associated emissions.

As an infill development located near existing transit, the Project contributes to a reduction in air quality emissions via a reduction in vehicle trips and VMT, consistent with. with the SCAQMD's RTP/SCP and AQMP control measures. **Based on the Project's consistency with the AQMP's population growth and Project having less than significant localized impacts, and given the Project attributes as an infill development that results in reduced vehicle trips, VMT and emissions, the Project is consistent with applicable SCAQMD and SCAG air quality policies.**

(b) City of Los Angeles Policies

To achieve the goals of the Air Quality Element, performance-based standards have been adopted to provide flexibility in implementation of its policies and objectives. The following Air Quality Element goals, objectives, and policies are relevant to the Project:

Goal 2—Less reliance on single-occupant vehicles with fewer commute and non-work trips.

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.

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 Vehicle Miles Traveled (VMT) as an employer and encourage

[51] *Environmental Protection Agency, Mixed-Use Trip Generation Model. www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed on December 16, 2019.*

the private sector to do the same to reduce work trips and traffic congestion.

Goal 4—Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

Objective 4.1—It is the objective of the City of Los Angeles to include regional attainment of ambient air quality standards as a primary consideration in land use planning.

Policy 4.1.1—Coordinate with all appropriate regional agencies in the implementation of strategies for the integration of land use, transportation, and air quality policies.

Objective 4.2—It is the objective of the City of Los Angeles to reduce vehicle trips and vehicle miles traveled associated with land use patterns.

Policy 4.2.2—Improve accessibility for the City's residents to places of employment, shopping centers, and other establishments.

Policy 4.2.3—Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.

Policy 4.2.4—Require that air quality impacts be a consideration in the review and approval of all discretionary projects.

Policy 4.2.5—Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.

The Project would promote the City of Los Angeles General Plan Air Quality Element goals, objectives and policies, as provided above under the regulatory framework. Specifically, the Project includes 284 bicycle parking spaces consisting of 102 short-term spaces and 182 long-term spaces. The Project would provide opportunities for the use of alternative modes of transportation, including convenient access to public transit and opportunities for walking and biking, thereby facilitating a reduction in VMT. In addition, the Project would be consistent with the existing land use pattern in the vicinity that concentrates urban density along major arterials and near transit options. The Project also includes primary entrances for pedestrians and bicyclists that would be safe, easily accessible, and a short distance from transit stops. A more detailed analysis of the Project's consistency with the City's General Plan is presented in Table IV.B-5 on page IV.B-46 which identifies specific goals and polices of the City's General Plan and demonstrates the Project's consistency with these goals.

Table IV.B-5
Project Consistency with City of Los Angeles General Plan (Air Quality Element)

Recommendation	Analysis of Project Consistency
Air Quality Element	
Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.	**No Conflict.** The Project's land use characteristics would reduce VMT due to its urban infill location. The Project will implement a Transportation Demand Management (TDM) Program to reduce peak-hour traffic to/from the site. The TDM program will include bicycle amenities, carpool promotion and incentives for alternative travel modes. The project also has nearby access to public transportation within a half mile of the Project Site and location in an area close to residential locations reducing the distance travelled for employees.
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.	**No Conflict.** The Project would be located within a half a mile from the Metro Hollywood/Vine station and is served by several bus stops including Metro Line 2, LADOT DASH Hollywood and DASH Hollywood/ Wilshire. The Project will implement a Transportation Demand Management (TDM) Program to reduce peak-hour traffic to/from the site. The TDM program will include incentives for alternative travel modes. The Project would locate commercial uses in an area located near major residential centers which would reduce trips and encourage employees 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 Vehicle Miles Traveled (VMT) as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	**No Conflict**. The Project would be located within a half a mile from the Metro Hollywood/Vine station and is served by several bus stops including Metro Line 2, LADOT DASH Hollywood and DASH Hollywood/ Wilshire. The Project will implement a Transportation Demand Management (TDM) Program to reduce peak-hour traffic to/from the site. The TDM program will include incentives for alternative travel modes.
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.	**No Conflict.** The Project's characteristics would reduce VMT due to its infill location, placing commercial uses near major residential areas, and access to public transportation within a half mile of the Project site
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.	**No Conflict.** 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 land use characteristics that would reduce land use planning-related air pollutant emissions.
Policy 4.1.2: Ensure that project level review and approval of land use development remain at the local level.	**No Conflict.** The Project environmental review and approval would occur at the local level.

Table IV.B-5 (Continued)
Project Consistency with City of Los Angeles General Plan

Recommendation	Analysis of Project Consistency
Objective 4.2: It is the objective of the City of Los Angeles to reduce vehicle trips and VMT associated with land use patterns.	**No Conflict.** The Project's characteristics would reduce VMT due to its infill location, placing commercial uses near major residential areas, and access to public transportation within a half mile of the Project site. The Project will also implement a Transportation Demand Management (TDM) Program to reduce peak-hour traffic to/from the site. The TDM program will include bicycle amenities, carpool promotion and incentives for alternative travel modes.
Policy 4.2.2: Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	**No Conflict.** The Project's characteristics would reduce VMT due to its infill location, placing commercial uses near major residential areas, and access to public transportation within a half mile of the Project site. The Project would also be located within a half mile of off-site commercial, retail, restaurant, and entertainment potentially reducing employee trips. The Project will also implement a Transportation Demand Management (TDM) Program to reduce peak-hour traffic to/from the site. The TDM program will include bicycle amenities, carpool promotion and incentives for alternative travel modes.
Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**No Conflict.** The Project would incorporate pedestrian pathways that would connect to the existing sidewalk network. The Project will also implement a Transportation Demand Management (TDM) Program to reduce peak-hour traffic to/from the site. The TDM program will include bicycle amenities, carpool promotion and incentives for alternative travel modes.
Policy 4.2.4: Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	**No Conflict.** 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.	**No Conflict .** The Project would occupy an infill location within a half-mile of existing public transportation. The Project will also implement a Transportation Demand Management (TDM) Program to reduce peak-hour traffic to/from the site. The TDM program will include bicycle amenities, carpool promotion and incentives for alternative travel modes.

Source: Eyestone Environmental, 2020.

Based on the above, the Project is consistent with applicable policies of the City of Los Angeles Air Quality Element. Refer to Section IV.G, Land Use and Planning, of this Draft EIR, for an analysis of the Project's consistency with the City's General Plan.

(c) Conclusion

In conclusion, analysis of Threshold (a) was based on the Project's consistency with the AQMP as well as the City of Los Angeles plans and policies. The determination of AQMP consistency is primarily concerned with the long-term influence of the Project on air quality in the Air Basin. As discussed above, the Project would not increase the frequency or severity of an existing air quality violation or cause or contribute to new violations for these pollutants. As the Project would not exceed any of the state and federal standards, the Project would also not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP. In addition, because the Project is consistent with growth projections that form the basis of the 2016 AQMP, the Project would be consistent with the emissions forecasts in the AQMP. Furthermore, while the Project does not implement any air quality mitigation measures, the Project would comply with all applicable regulatory standards and would incorporate the project design features identified in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR, that would serve to reduce the criteria air pollutants discussed herein. Additionally, as the Project would support the City of Los Angeles and SCAQMD's objectives of reducing VMT and the related vehicular air emissions, the Project would be consistent with AQMP control measures. **Thus, the Project is consistent with the AQMP and applicable policies of the City of Los Angeles pertaining to air quality. Based on the above, impacts to Threshold (a) would be less than significant.**

(2) Mitigation Measures

Project-level impacts related to conflicts with the AQMP would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to conflicts with the AQMP were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (b): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

(1) Impact Analysis

(a) Construction

(i) Regional Emissions

As described in Section II, Project Description, of this Draft EIR, the timing of construction of specific elements of the Project would depend on the business needs at the time. Project construction could occur in phases, with buildout expected to be completed in 2028. Construction activities would include demolition of existing uses, grading and excavation, and construction of new structures and related infrastructure. Construction of Building A and Parking Structure would take approximately 39 months and construction of the subterranean parking structure would take 15 months. Construction of Buildings B and C would take 18 months. As discussed in more detail below, construction activities for each phase or building may overlap with one another. Approximately 280,000 cubic yards of soil would be hauled from the Project Site during excavation.

Construction of the Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from haul trucks and construction workers traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and construction activities. Mobile source emissions, primarily NO_X, would result from the use of construction equipment, such as dozers, loaders, and cranes. During the finishing phase of the Project, paving and the application of architectural coatings (e.g., paints) would potentially release VOCs. The assessment of construction air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

The proposed Project's studio-related creative office, production office/production support and storage uses would be provided within three new buildings (referred to herein as Buildings A, B, and C) and two new parking structures (referred to herein as Parking Structure and Subterranean Parking Structure). For purposes of this analysis, it was assumed that Building A and Parking Structure would be constructed first since these construction activities would result in the most export and square footage of building construction (i.e., maximum daily pollutant emissions). Once excavation is completed at Building A and Parking Structure, excavation of the Subterranean Parking Structure would start. Construction of the Subterranean Parking Structure would commence after excavation activities are completed. Once Building A, Parking Structure and Subterranean Parking Structure are completed, construction of combined Building's B and C would commence. Construction assumptions, including construction schedule, heavy-duty construction equipment mix, and the number of employee and delivery and haul truck trips, are included in Appendix B (CalEEMod Construction Output file). As a conservative estimate, this construction schedule assumes that construction would take place within a

five year duration and start at the earliest feasible date (Year 2021). However, buildout of the Project is not expected until 2028. Construction equipment and vehicle (truck) emissions standards are expected to improve over time. If construction of the Project were to be delayed, emissions would be lower as newer and lower emitting equipment and trucks would be used. Therefore, by assuming an accelerated construction schedule, the estimate of Project construction emissions is considered conservative. Table IV.B-6 on page IV.B-51 provides the peak daily emissions by construction phase and includes overlapping phases (e.g., Overlap of Grading of Subterreanen Parking Structure and Building Construction of Building A & Parking Structure). As presented in Table IV.B-6, regional NO_X emissions would exceed the SCAQMD regional threshold during peak periods of construction (approximately 156 days over the five year construction duration). The maximum daily regional NO_X emissions of 261 pounds per day would be anticipated to occur for four days during the overlap of concrete pour days associated with the Subterranean Parking Structure and overlap with building construction of Building A and Parking Structure.

Therefore, regional construction emissions resulting from the Project would result in a significant short-term impact. Further, as discussed below, mitigation measures would not reduce impacts to a less than significant level. Therefore, impacts would remain significant and unavoidable after implementation of feasible mitigation.

(ii) Localized Emissions

On-Site Construction Activities (Criteria Pollutants)

As discussed above in the methodology subsection, the localized construction air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look-up tables provided by the SCAQMD were used to determine localized construction emissions thresholds for the Project.[52] LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are based on the most recent background ambient air quality monitoring data (2016–2018) for the Project area presented in Table IV.B-2 on page IV.B-21. Although the trend shown in Table IV.B-2 demonstrates that ambient air quality is improving in the area, the localized construction emissions analysis conservatively did not apply an expected reduction in background pollutant concentrations for subsequent years of construction (i.e., 2024–2028). By doing so, the allowable pollutant increment to not exceed an ambient air quality standard is more stringent, thus making this analysis more conservative. The analysis is based on existing background ambient air quality monitoring data (2016–2018).

[52] *SCAQMD, LST Methodology Appendix C—Mass Rate LST Look-up Table, revised October 2009.*

Table IV.B-6
Estimate of Maximum Regional Project Daily Construction Emissions (pounds per day)[a]

Construction Phasing and Duration		Pollutant Emissions (pounds per day)					
Phase (Activity)[b]	**Active Days**	**VOC[c]**	**NO_X**	**CO**	**SO_X**	**PM_{10}[d]**	**$PM_{2.5}$[d]**
Demolition (Total)	83	4	55	37	<1	5	2
Grading (Bldg. A & Parking Structure)	65	6	126	49	<1	9	4
Mat Foundation (Bldg. A & Parking Structure)[e]	10	10	184	89	<1	10	5
Overlap of Grading (Subterranean Parking Structure) and Building Construction (Bldg. A & Parking Structure)	54	11	152	92	<1	17	6
Overlap of Mat Foundation (Subterranean Parking Structure) and Building Construction (Bldg. A & Parking Structure)[f]	10	17	261	143	1	19	8
Overlap of Building Construction (Subterranean Parking Structure and Bldg. A & Parking Structure)	260	10	49	81	<1	15	5
Building Construction (Bldg. A & Parking Structure)	364	5	26	42	<1	8	3
Overlap of Grading (Bldgs. B & C); (Building Construction (Bldg. A & Parking Structure); and Architectural Coatings	7	22	104	90	<1	16	6
Overlap of Mat Foundation (Bldgs. B & C) and Architectural Coatings[g]	10	21	111	86	<1	10	4
Overlap of Building Construction (Bldgs. B & C) and Architectural Coatings	392	17	25	41	<1	13	4
Maximum Unmitigated Construction Emissions		**22**	**261**	**143**	**1**	**19**	**8**
SCAQMD Daily Significance Thresholds		**75**	**100**	**550**	**150**	**150**	**55**
Over/(Under)		**(53)**	**161**	**(407)**	**(150)**	**(131)**	**(47)**
Maximum Unmitigated Construction Emissions Exceed Threshold?		**No**	**Yes**	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.*

[b] *Construction assumptions, including construction schedule, heavy-duty construction equipment mix, and the number of employee and delivery and haul truck trips, are included in Appendix B (CalEEMod Construction Output file).*

[c] *Please note that the SCAQMD significance threshold is in terms of VOC while CalEEMod calculates reactive organic compounds (ROG) emissions. For purposes of this analysis, VOC and ROG are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.*

[d] *Unmitigated scenario assumes compliance with SCAQMD Rule 403 requirements for fugitive dust.*

[e] *Reflects pollutant emissions that would occur on a total of six days during pouring of Building A and Parking Structure F's mat foundation during the ten day period.*

[f] *Reflects pollutant emissions that would occur on a total of four days during pouring of Below Grade Parking Structure's mat foundation during the ten day period.*

Table IV.B-6 (Continued)
Estimate of Maximum Regional Project Daily Construction Emissions (pounds per day)

Construction Phasing and Duration		Pollutant Emissions (pounds per day)					
Phase (Activity)[b]	Active Days	VOC[c]	NO_X	CO	SO_X	PM_{10}[d]	$PM_{2.5}$[d]
[g] *Reflects pollutant emissions that would occur on a total of three days during pouring of Building C and Building D's mat foundation during the ten day period.*							
Source: Eyestone Environmental, 2020.							

Maximum on-site daily construction emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ were calculated using CalEEMod and compared to the applicable SCAQMD LSTs for SRA 1 based on a five-acre site. Potential impacts were evaluated at the closest off-site sensitive receptor, which are residential uses located to the west and east of the Project Site, across Gower Street and Gordon Street, respectively, and approximately 20 meters from the Project Site. The closest receptor distance on the SCAQMD mass rate LST look-up tables is 25 meters. Based on SCAQMD LST methodology, projects with boundaries located closer than 25 meters to the nearest receptor (such as the Project) should use the LSTs for receptors located at 25 meters.[53]

The maximum daily localized emissions from Project construction and LSTs are presented in Table IV.B-7 on page IV.B-53. As presented in Table IV.B-7, maximum construction emissions would not exceed the SCAQMD localized screening thresholds; therefore, impacts **would be less than significant impact with regard to localized emissions.**

Off-Site Construction Activities (CO "Hot Spots" Analysis)

Consistent with the CO methodology above, if a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hot spot analysis.

Project construction would result in a peak 1,208 combined daily vehicular trips (i.e., employee, delivery and haul truck trips) during the Mat Foundation for the Subterranean Parking Structure. The highest average daily trips at an intersection under the Existing Condition would be approximately 53,280 trips at the Sunset Boulevard and Vine Street

[53] *SCAQMD, Final Localized Significance Threshold Methodology, revised July 2008.*

Table IV.B-7
Estimate of Maximum Localized Daily Project Construction Emissions[a]
(pounds per day)

Construction Phasing and Duration		Pollutant Emissions (pounds per day)			
Phase (Activity)	**Active Days**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$[b]**
Demolition (Total)	83	29	28	3	2
Grading (Bldg. A & Parking Structure)	65	27	22	3	1
Mat Foundation (Bldg. A & Parking Structure)	10	52	57	7	3
Overlap of Grading (Subterranean Parking Structure) and Building Construction (Bldg. A & Parking Structure)	54	45	43	5	2
Overlap of Mat Foundation (Subterranean Parking Structure) and Building Construction (Bldg. A & Parking Structure)	10	71	79	11	4
Overlap of Building Construction (Subterranean Parking Structure and Bldg. A & Parking Structure)	260	33	39	3	2
Building Construction (Bldg. A & Parking Structure)	364	18	21	2	1
Overlap of Grading (Bldgs. B & C); (Building Construction (Bldg. A & Parking Structure); and Architectural Coatings	7	38	45	4	2
Overlap of Mat Foundation (Bldgs. B & C) and Architectural Coatings	10	45	61	7	2
Overlap of Building Construction (Bldgs. B & C) and Architectural Coatings	392	17	24	2	1
Maximum Unmitigated Daily Localized Emissions		**71**	**79**	**11**	**4**
SCAQMD Localized Significance Thresholds[c]		**107**	**1,861**	**16**	**11**
Over/(Under)		**(36)**	**(1,782)**	**(5)**	**(7)**
Exceed Threshold?		**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.*

[b] *Unmitigated scenario assumes compliance with SCAQMD Rule 403 requirements for fugitive dust.*

[c] *Potential localized construction impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The closest sensitive receptor are residential uses located to the west and east of the Project Site, across Gower Street and Gordon Street, respectively, and approximately 20 meters from the Project Site. The localized threshold is based on a 25 meter receptor distance which is the closest receptor distance on the SCAQMD mass rate LST look-up table.*

Source: Eyestone Environmental, 2020.

intersection.[54] Conservatively assuming that all of the Project construction would drive through this intersection would result in approximately 54,488 trips, which is significantly below the daily traffic volumes that would be expected to generate CO exceedances as evaluated in the 2003 AQMP.[55] This daily trip estimate is based on the peak hour conditions of the intersection. There is no reason unique to the Air Basin meteorology to conclude that the CO concentrations at the Sunset Boulevard and Vine Street intersection would exceed the 1-hour CO standard if modeled in detail, based on the studies undertaken for the 2003 AQMP. **The Project off-site construction activities, including the highest average daily trips, would not expose sensitive receptors to substantial CO concentrations**. **As a result, impacts related to localized construction mobile-source CO emissions are considered less than significant.**

(iii) Toxic Air Contaminants

The greatest potential for TAC emissions during construction would be from diesel particulate emissions associated with heavy equipment operations. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. Given the short-term construction schedule of approximately 5 years, the Project would not result in a long-term (i.e., 70-year) source of TAC emissions. Additionally, the SCAQMD CEQA guidance does not require a HRA for short-term construction emissions. It is, therefore, not necessary to evaluate long-term cancer impacts from construction activities which occur over a relatively short duration. **The Project construction activities, including generation of TACs, would not expose sensitive receptors to substantial pollutant concentrations**. **Project-related TAC impacts during construction would be less than significant.**

(b) Operation

(i) Regional Emissions

As discussed above, SCAQMD's CalEEMod was used to calculate regional area, energy, mobile source, and stationary emissions. The Project would incorporate project design features to support and promote environmental sustainability, as discussed in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR. While these features are

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[54] *Gibson Transportation Consulting Inc., CEQA Thresholds Analysis for the Sunset Gower Studios Preservation and Enhancement Plan, Hollywood, California, February 2020.*

[55] *The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm, which indicates that the most stringent 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day.*

designed primarily to reduce greenhouse gas emissions relative to a standard default project as analyzed by CalEEMod within the air basin, the features would also likely serve to reduce relative criteria air pollutants discussed herein. For purposes of the air quality analysis, such project design features incorporated in this analysis include the Project Site's increase in accessibility to transit and increase in diversity of uses and density. These project design features are explained further in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR.

Table IV.B-8 on page IV.B-56 provides Project operational emissions with incorporation of project design features. As shown in Table IV.B-8, regional emissions resulting from operation of the Project would not exceed any of the SCAQMD's daily regional operational thresholds.

(ii) Localized Emissions

As previously discussed, the SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project Site as a result of Project construction and operations. The thresholds are based on applicable short-term state and federal ambient air quality standards.

On-Site Operational Activities (Criteria Pollutants)

Operation of the Project would not introduce any major new sources of air pollution within the Project Site. Emissions estimates for criteria air pollutants from on-site sources are presented in Table IV.B-9 on page IV.B-57. The SCAQMD LST mass rate look-up tables were used to evaluate potential localized impacts. As shown in Table IV.B-9, on-site operational emissions would not exceed any of the LSTs. **The Project on-site operational activities, including generation of criteria pollutants, would not expose sensitive receptors to substantial pollutant concentrations. Therefore, localized operational emissions resulting from the Project would result in a less-than-significant air quality impact.**

Off-Site Operational Activities (CO "Hot Spots" Analysis)

Consistent with the CO methodology above, if a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hot spot analysis. At buildout of the Project, the highest average daily trips at an intersection would be approximately 70,000 trips at the Sunset Boulevard and Vine Street intersection,[56] which is significantly below the daily traffic volumes that would be expected

[56] *Gibson Transportation Consulting Inc., CEQA Thresholds Analysis for the Sunset Gower Studios Preservation and Enhancement Plan, Hollywood, California, February 2020.*

Table IV.B-8
Estimate of Maximum Regional Project Daily Operational Emissions—At Project Buildout (2028)[a]

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project						
Area	11	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	1	<1	<1	<1	<1
Mobile	3	13	31	<1	13	4
Stationary	<1	<1	2	<1	<1	<1
Total Proposed Uses Emissions	**13**	**11**	**28**	**<1**	**11**	**3**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	**(42)**	**(44)**	**(522)**	**(150)**	**(139)**	**(52)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.*

Source: Eyestone Environmental, 2020.

to generate CO exceedances as evaluated in the 2003 AQMP.[57] This daily trip estimate is based on the peak hour conditions of the intersection. There is no reason unique to the Air Basin meteorology to conclude that the CO concentrations at the Sunset Boulevard and Vine Street intersection would exceed the 1-hour CO standard if modeled in detail, based on the studies undertaken for the 2003 AQMP. In addition, CO background concentrations within the vicinity of the modeled intersection have substantially decreased since preparation of the 2003 AQMP primarily due to ongoing fleet turn over of older on-road light duty vehicles and cleaner fuels.[58] In 2003, the 1-hour background CO concentration was 5 ppm and has decreased to 2 ppm in 2014.[59] Therefore, the Project does not trigger the need for a detailed CO hotspots model and would not cause any new or exacerbate any existing CO hotspots. The supporting data for this analysis is included in the Transportation Appendix of this Draft EIR. **The Project off-site operational activities, including the highest average daily trips, would not expose sensitive receptors to substantial CO**

[57] *The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm, which indicates that the most stringent 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day.*

[58] *SCAQMD, Carbon Monoxide Redesignation Request and Maintenance Plan, February 2005.*

[59] *SCAQMD, Historical Data by Year, www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year, accessed February 14, 2020.*

Table IV.B-9
Estimate of Maximum Localized Project Daily Operational Emissions—At Project Buildout (2028)[a]
(pounds per day)

Emission Source	Pollutant Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Area	<1	<1	<1	<1
Energy (Natural Gas)	1	1	<1	<1
Stationary	<1	2	<1	<1
On-Site Total	**1**	**3**	<1	<1
SCAQMD Significance Threshold[b,c]	**107**	**1,861**	**4**	**2**
Over/(Under)	**(106)**	**(1,858)**	**(4)**	**(2)**
Exceed Threshold?	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.*

[b] *Potential localized construction impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The closest sensitive receptor are residential uses located to the west and east of the Project Site, across Gower Street and Gordon Street, respectively, and approximately 20 meters from the Project Site. The localized threshold is based on a 25 meter receptor distance which is the closest receptor distance on the SCAQMD mass rate LST look-up table.*

[c] *Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD LST for VOCs. In addition, SCAQMD does not provide an LST for SO_2 since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant.*

Source: Eyestone Environmental, 2020.

concentrations. As a result, impacts related to localized mobile-source CO emissions are considered less than significant.

(iii) Toxic Air Contaminants

CARB has published and adopted the *Air Quality and Land Use Handbook: A Community Health Perspective*, which provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities).[60] The SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local*

[60] *CARB, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.*

Planning.[61] Together, the CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources and the addition of new TAC sources in proximity to existing sensitive land uses.

The primary sources of potential air toxics associated with Project operations include diesel particulate matter from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets) and to a lesser extent facility operations (e.g., natural gas fired boilers). The existing uses at the site currently generate truck trips in support of production stage spaces and has parking availability for approximately 40-50 trucks. As the Project would not increase square footage for production uses compared to existing conditions, the Project would not result in an increase in operational emissions from delivery trucks.

SCAQMD recommends that HRAs be conducted for substantial individual sources of diesel particulate matter (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.[62] The Project would not result in an increase in delivery trucks. Based on SCAQMD guidance, the Project would not include these types of land uses and is not considered to be a substantial source of diesel particulate matter warranting a refined HRA. Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes (e.g., chrome plating, electrical manufacturing, petroleum refinery). The Project would not include these types of potential industrial manufacturing process sources. It is expected that quantities of hazardous TACs generated on-site (e.g., cleaning solvents, paints, landscape pesticides, etc.) for the types of proposed land uses would be below thresholds warranting further study under the California Accidental Release Program (CalARP).

In addition, the Project would only result in minimal emissions of air toxics from the use of consumer products and landscape maintenance activities, among other things. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the Project.

As the Project would not contain substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, the Project would not result in the exposure of off-site sensitive receptors to carcinogenic or toxic air contaminants that exceed

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[61] *SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005.*

[62] *SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, 2002.*

the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.

(c) Concurrent Construction and Operational Emissions

Portions of the Project Site would be completed and occupied while construction of the later Project components would be ongoing. Therefore, concurrent construction and operational impacts were evaluated. Based on a review of the Project, the reasonably anticipated maximum concurrent emissions are expected to occur during operation of Building A, Parking Structure, and Subterranean Parking Structure (2024) and construction of Buildings B and C. This development scenario results in the maximum amount of operational activity in terms of square footage developed on the Project Site and resultant daily vehicle trips. It also assumes maximum daily activity (i.e., peak on-site heavy-duty construction equipment usage and haul truck trips) occurring during construction of Buildings B and C. As summarized in Table IV.B-10 on page IV.B-60, regional emissions of NO_X during concurrent operations and construction without mitigation would exceed the SCAQMD regional operational threshold. Maximum concurrent construction and operational emissions would not exceed the SCAQMD-recommended localized screening thresholds; therefore, impacts would be less than significant impact with regard to localized emissions, and no mitigation measures are required.

(d) Conclusion

According to SCAQMD guidance, individual projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would have a cumulatively considerable contribution to emissions for those pollutants for which the Air Basin is in non-attainment. As shown in Table IV.B-6 on page IV.B-51, Project construction daily emissions at the Project Site would exceed the SCAQMD's regional NO_X threshold during peak periods of construction (approximately 156 days over the five year construction duration). As shown on page Table IV.B-8 on page IV.B-56, Project operational daily emissions at the Project Site would not exceed any of the SCAQMD's regional thresholds, respectively. Therefore, the Project's construction-related emissions for NOx would be cumulatively considerable and therefore significant. The Project's operation-related regional emissions would not be cumulatively considerable and therefore would be less than significant. As shown in Table IV.B-9 on page IV.B-57, the Project would have a less-than-significant impact with regard to localized emissions. Therefore, the Project's contribution to air quality impacts due to localized emissions would not be cumulatively considerable.

Based on the above, impacts to Threshold (b) would be significant as the Project would exceed the SCAQMD daily significance threshold for NO_X during construction.

Table IV.B-10
Estimate of Maximum Regional Project Daily Concurrent Operation and Construction Emissions (Unmitigated)[a]
(pounds per day)

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
REGIONAL EMISSIONS						
Regional Operational Emissions	10	8	33	<1	6	2
Proposed Project (Grading for Buildings B and C)	22	104	90	<1	16	6
Total Proposed Project Regional Overlap	**32**	**112**	**123**	**1**	**22**	**7**
SCAQMD Operation Thresholds	55	55	550	150	150	55
Exceed Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**
LOCALIZED EMISSIONS						
Localized Operational Emissions	N/A	<1	3	N/A	<1	<1
Proposed Project (Grading for Buildings B and C)	N/A	45	61	N/A	7	3
Total Proposed Project Localized Overlap	N/A	45	61	N/A	7	3
SCAQMD Localized Significance Thresholds[b,c]	N/A	107	1,861	N/A	16	8
Exceed Threshold?	**N/A**	**No**	**No**	**N/A**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.*

[b] *Potential localized construction impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The closest sensitive receptor are residential uses located to the west and east of the Project Site, across Gower Street and Gordon Street, respectively, and approximately 20 meters from the Project Site. The localized threshold is based on a 25 meter receptor distance which is the closest receptor distance on the SCAQMD mass rate LST look-up table.*

[c] *Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD LST for VOCs. In addition, SCAQMD does not provide an LST for SO_2 since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant.*

Source: Eyestone Environmental, 2020.

(2) Mitigation Measures

The following mitigation measures set forth a program of air pollution control strategies designed to reduce the Project's air quality impacts to the extent feasible during construction.

Mitigation Measure AIR-MM-1: During plan check, the Project representative shall make available to the lead agency or City of Los Angeles Department of Building and Safety and the South Coast Air Quality Management District a comprehensive inventory of all off-road

construction equipment, equal to or greater than 50 horsepower, that with the exception of demolition activities will be used during any portion of construction. The inventory shall include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each unit's certified tier specification, Best Available Control Technology documentation, and California Air Resources Board or Air Quality Management District operating permit shall be available onsite at the time of mobilization of each applicable unit of equipment to allow the Construction Monitor to compare the on-site equipment with the inventory and certified Tier specification and operating permit. Off-road diesel-powered equipment within the construction inventory list described above shall meet the EPA Tier 4 Final standards where feasible.

(3) Level of Significance After Mitigation

(a) Construction

Implementation of the mitigation measures described above would reduce construction emissions for all pollutants. Table IV.B-11 on page IV.B-62 provides the peak daily mitigated regional emissions by construction phase and includes overlapping phases (e.g., Overlap of Grading of Subterreanen Parking Structure and Building Construction of Bldg A & Parking Structure). As presented in Table IV.B-11, with full implementation of Mitigation Measure AIR-MM-1, peak daily regional would exceed the SCAQMD regional threshold of 100 pounds per day during peak periods of construction (approximately 139 days over the five year construction duration). The maximum daily regional NO_X emissions of 261 pounds per day would be reduced to 204 pounds per day or a decrease of 22 percent and would be anticipated to occur for four days during the overlap of concrete pour days associated with the Subterranean Parking Structure and overlap with building construction of Building A and Parking Structure. **As such, Project construction would result in significant and unavoidable Project-level and cumulative regional impacts even with incorporation of all feasible mitigation measures.**

No significant impacts related to localized emissions for all pollutants and TAC emissions during construction are anticipated to occur as a result of the Project. As such, potential Project-level and cumulative localized pollutant and TAC impacts would be less than significant.

(b) Operation

Project operation would not require implementation of mitigation measures. Project-level and cumulative operational impacts with regard to regional and localized air quality would be less than significant.

Table IV.B-11
Estimate of Mitigated Maximum Regional Project Daily Construction Emissions (pounds per day)[a]

Construction Phasing and Duration		Pollutant Emissions (pounds per day)					
Phase (Activity)	**Active Days**	**VOC[b]**	**NO_X**	**CO**	**SO_X**	**PM_{10}[c]**	**$PM_{2.5}$[c]**
Demolition (Total)	83	4	55	37	<1	5	2
Grading (Bldg. A & Parking Structure)	65	4	102	57	<1	8	3
Mat Foundation (Bldg. A & Parking Structure)[d]	10	5	140	89	<1	7	2
Overlap of Grading (Subterranean Parking Structure) and Building Construction (Bldg. A & Parking Structure)	54	7	115	99	<1	15	4
Overlap of Mat Foundation (Subterranean Parking Structure) and Building Construction (Bldg. A & Parking Structure)[e]	10	17	204	143	1	16	5
Overlap of Building Construction (Subterranean Parking Structure and Bldg. A & Parking Structure)	260	6	26	81	<1	13	4
Building Construction (Bldg. A & Parking Structure)	364	3	13	43	<1	7	2
Overlap of Grading (Bldgs. B & C); (Building Construction (Bldg. A & Parking Structure); and Architectural Coatings	7	19	75	98	<1	14	4
Overlap of Mat Foundation (Bldgs. B & C) and Architectural Coatings[f]	10	16	73	86	<1	8	2
Overlap of Building Construction (Bldgs. B & C) and Architectural Coatings	392	15	13	42	<1	12	3
Maximum Unmitigated Construction Emissions		**19**	**204**	**143**	**1**	**16**	**5**
SCAQMD Daily Significance Thresholds		**75**	**100**	**550**	**150**	**150**	**55**
Over/(Under)		**(56)**	**104**	**(407)**	**(150)**	**(134)**	**(50)**
Maximum Unmitigated Construction Emissions Exceed Threshold?		**No**	**Yes**	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR. Pollutant emissions reflect full implementation of Mitigation Measure AIR-MM-1.*

[b] *Please note that the SCAQMD significance threshold is in terms of VOC while CalEEMod calculates reactive organic compounds (ROG) emissions. For purposes of this analysis, VOC and ROG are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.*

[c] *Unmitigated scenario assumes compliance with SCAQMD Rule 403 requirements for fugitive dust.*

[d] *Reflects pollutant emissions that would occur on a total of six days during pouring of Building A and Parking Structure F's mat foundation during the ten day period.*

[d] *Reflects pollutant emissions that would occur on a total of four days during pouring of Below Grade Parking Structure's mat foundation during the ten day period.*

[f] *Reflects pollutant emissions that would occur on a total of three days during pouring of Building C and Building D's mat foundation during the ten day period.*

Source: Eyestone Environmental, 2020.

(c) Concurrent Construction and Operational Emissions

Implementation of the mitigation measures described above would reduce construction emissions for all pollutants. Table IV.B-12 on page IV.B-64 provides the mitigated regional emissions during concurrent operations and construction. As presented in Table IV.B-12, with full implementation of Mitigation Measure AIR-MM-1, peak daily regional emissions of NO_X would exceed the SCAQMD regional threshold. **As such, concurrent Project construction and operations would result in significant and unavoidable Project-level and cumulative regional impacts even with incorporation of all feasible mitigation measures.**

No significant impacts related to localized emissions for all pollutants and TAC emissions during concurrent construction and operations are anticipated to occur as a result of the Project. As such, potential Project-level and cumulative localized pollutant and TAC impacts would be less than significant.

Threshold (c): Would the Project expose sensitive receptors to substantial pollutant concentrations?

(1) Impact Analysis

(a) Construction

Project-related localized construction impacts are evaluated based on SCAQMD LST methodology which takes into account ambient pollutant concentrations. Based on SCAQMD methodology, localized emissions which exceed LSTs would also cause an exceedance of ambient air quality standards. As analyzed in Threshold (b) above and shown in Table IV.B-9 on page IV.B-57, Project-related construction emissions would not exceed localized thresholds. **Therefore, localized construction emissions resulting from the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Localized construction emissions resulting from the Project would result in a less-than-significant air quality impact.**

(b) Operation

Project-related operational emissions were also evaluated based on SCAQMD LST methodology from on-site sources (e.g. water heaters, cooking appliances, HVAC). The potential to cause or contribute to CO hotspots (potential exceedances of ambient air quality standards) from post-construction motor vehicle operations was also evaluated As analyzed in Threshold (b) above and shown in Table IV.B-10 on page IV.B-60, Project-related operational emissions from on-site and off-site sources would not exceed localized thresholds. **Therefore, localized operational emissions resulting from the**

Table IV.B-12
Estimate of Maximum Regional Project Daily Concurrent Operation (Unmitigated) and Construction (Mitigated) Emissions[a,b]
(pounds per day)

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
REGIONAL EMISSIONS						
Regional Operational Emissions	10	8	33	0	6	2
Proposed Project (Grading for Buildings B and C)	19	75	98	<1	14	4
Total Proposed Project Regional Overlap	**28**	**83**	**130**	**1**	**20**	**6**
SCAQMD Operation Thresholds	55	55	550	150	150	55
Exceed Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.*

[b] *Pollutant emissions reflect full implementation of Mitigation Measure AIR-MM-1.*

Source: Eyestone Environmental, 2020.

Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Localized operational emissions resulting from the Project would result in a less-than-significant air quality impact.

Based on the above, impacts to Threshold (c) would be less than significant.

(2) Mitigation Measures

Project-level impacts to sensitive receptors would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts to sensitive receptors were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (d): Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and evaluated in the Initial Study prepared for the Project, which is included as Appendix A of

this Draft EIR, the Project would not create objectionable odors impacting a substantial number of people. **Thus, the Project would have a less than significant impact with respect to Threshold (d). No further analysis is required.**

e. Cumulative Impacts

(1) Impact Analysis

(a) Construction

As discussed in Section IV.B.3.c(2) under Thresholds (b) and (c) above, the Project's construction-related regional air quality emissions, localized emissions, and emissions of TACs would be less than significant except for an exceedance of the SCAQMD's regional NO_X significance threshold during peak periods of construction (approximately 156 days over the five year construction duration). The maximum daily regional NO_X emissions of 261 pounds per day would be anticipated to occur for four days during the overlap of concrete pour days associated with the Subterranean Parking Structure and overlap with building construction of Building A and Parking Structure. Based on SCAQMD guidance, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment.[63] Therefore, the Project's contribution to cumulative air quality impacts due to regional NO_X emissions would be cumulatively considerable.

(b) Operation

As discussed above, the Project's operational air quality emissions, localized emissions and TACs would be less than significant. According to the SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then the project would also result in a cumulatively considerable net increase of these criteria pollutants.[64] As operational emissions did not exceed any of the SCAQMD's regional or localized significance thresholds, the emissions of non-attainment pollutants and precursors generated by project operation would not be cumulatively considerable.

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[63] *SCAQMD, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003, Appendix D.*

[64] *SCAQMD, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003, Appendix D.*

(c) Concurrent Construction and Operational Emissions

As discussed above, the Project's regional emissions of NO_X during concurrent operations and construction would exceed the SCAQMD regional operational threshold. Based on SCAQMD guidance, individual concurrent construction and operational projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. [65] Therefore, the Project's contribution to cumulative air quality impacts due to regional NO_X emissions would be cumulatively considerable.

In conclusion, during construction and concurrent construction and operations, the Project would have a significant cumulative impact to regional impacts and be cumulatively considerable.

(2) Mitigation Measures

Cumulative impacts related to air quality would be cumulatively considerable during construction activities. Mitigation Measure AIR-MM-1 has been implemented to reduce construction NOx emissions to the furthest extent possible.

(3) Level of Significance After Mitigation

Even with implementation of Mitigation Measure AIR-MM-1, Project construction would result in significant and unavoidable Project-level and cumulative regional impacts. Project-level and cumulative operational impacts with regard to regional and localized air quality would be less than significant.

f. Quantitative Analysis Connecting the Project's Significant Regional Pollutant Emissions and Human Health Is Not Feasible

In response to the California Supreme Court decision on December 24, 2018, *Sierra Club v. County of Fresno* (Friant Ranch), the City prepared a guidance document (Air Quality and Health Effects (*Sierra Club v. County of Fresno*),[66] that provides a supplemental discussion on the potential for identifiable health impacts to result from air pollutants analyzed in City of Los Angeles (City) environmental documents prepared

[65] *SCAQMD, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003, Appendix D.*

[66] *City of Los Angeles, Air Quality Health Effects (Sierra Club v. County of Fresno), October 2019.*

pursuant to CEQA. The discussion focuses on significant impacts identified in City EIRs and the feasibility of directly relating any identified significant adverse air quality impact to likely health consequences.

The Supreme Court opinion in Friant Ranch requires projects with significant air quality impacts to "relate the expected adverse air quality impacts to likely health consequences or explain why it is not feasible at the time of drafting to provide such an analysis, so that the public may make informed decisions regarding the costs and benefits of the project" (Friant Ranch, page 6). The Friant Ranch decision also states that providing "only a general description of symptoms that are associated with exposure"... "fail[s] to indicate the concentrations at which such pollutants would trigger the identified symptoms...." and "the public would have no idea of the health consequences that result when more pollutants are added to a nonattainment basin".

The City's guidance document provides information to the public regarding health consequences associated with exposure to air pollutants and explains why direct correlation of a project's pollutant emissions and anticipated health effects is currently infeasible, as no expert agency has approved a quantitative method to reliably and meaningfully translate mass emission estimates of criteria air pollutants to specific health effects for the scale of projects typically analyzed in City EIRs.

In the case of the Project, regional construction emissions exceed the SCAQMD's recommended daily significance thresholds for NO_X. However, this does not mean that the concentration of ozone that will be created at or near the Project Site on a particular day or month of the year, or the specific human health impacts that may occur from such exceedance can be determined. As discussed in the City's guidance document, meteorology, the presence of sunlight, and other complex chemical factors all combine to determine the ultimate concentrations and locations of ozone. In addition, it would not be feasible to model the impact on attainment of the ambient air quality standards that these over-regional thresholds emissions from the Project may have with any degree of reliability or certainty. The currently available tools are equipped to model the impact of all emission sources in an air basin on attainment but lack the resolution to reliably model ozone concentrations from smaller sources of ozone precursors such as individual projects. Therefore, ozone modeling for individual projects would not be feasible or provide meaningful data to assess health impacts.

From a scientific standpoint, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. The SCAQMD's 2012 AQMP showed that reducing baseline year 2008 NO_X by 432 tons per day and reducing VOC by 187 tons per day would only reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion. This is a relatively immaterial change in local ozone concentrations for a large decrease in regional

ozone precursors (NOx and VOCs).[67] The SCAQMD also conducted pollutant modeling for proposed Rule 1315 in which the CEQA analysis accounted for essentially all of the increases in emisssions due to new or modified sources in the SCAQMD between 2010 and 2030, or approximately 6,620 pounds per day of NO_X and 89,947 pounds per day of VOC. The results of the analysis showed that this increase of regional pollutant emissions would contribute to a small increase in the Air Basin wide ozone concentrations in 2030 by 2.6 ppb and less than 1 ppb of NO_2. Again, this is a relatively immaterial increase in ozone concentrations despite the expected very large increase in regional ozone precursors.

Based on information provided in the City's guidance document, the Project would fall within the scope of a "typical City project", since peak daily construction regional NO_X emissions of 104 pounds per day over the SCAQMD's signficance threshold represent approximately 1.6 percent of the emissions analyzed by SCAQMD related to Rule 1315, respectively.Running the regional-scale photochemical grid model used for predicting ozone attainment with the emissions from the Project (which equates to approximately two-tenths of 1 percent of the VOC and NO_X in the air basin) would not yield reliable information regarding a measurable increase in ozone concentrations sufficient to accurately quantify the Project's ozone-related health impacts. Any modeled increase in ozone concentrations would not be useful for meaningful analysis, as the increase would be so comparatively small that it would be well within the error margins of such models. Based on this information, a general description of the adverse health impacts resulting from the pollutants at issue is all that can be feasibly provided at this time. Please see Appendix B, City's guidance document, for a discussion of general adverse health impacts resulting from NO_X.

[67] *SCAQMD, Final 2012 AQMP, February 2013, www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-20212-air-quality-management-plan; then follow "Appendix V: Modelling & Attainment Demonstrations" hyperlink, pp. v-4-2, v-7-4, v-7-24.*