IV. Environmental Impact Analysis

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A. 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 would conflict with implementation of the South Coast Air Quality Management District (SCAQMD)'s Air Quality Management Plan (AQMP) and the City of Los Angeles (City) General Plan; result in a cumulatively considerable net increase of any criteria pollutant in non-attainment of federal or State ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations; or result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. 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 C 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.A-1 on page IV.A-3.

b. Air Pollution and Potential Health Effects

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 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

Table IV.A-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.A-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.

in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower 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}. NO_X 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 O_3.

(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 SO_2 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 SO_2, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

(f) Lead (Pb)

Pb 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. Pb 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-})

SO_4^{2-} are the fully oxidized ionic form of sulfur. SO_4^{2-} 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 SO_4^{2-} exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. SO_4^{2-} 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 O_3, NO_2, 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 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) of 1963 was the first federal legislation regarding air pollution control and has been amended numerous times in subsequent years, with the most recent amendments in 1990. At the federal level, the United States Environmental

3 *CARB, Overview: Diesel Exhaust and Health, www.arb.ca.gov/research/diesel/diesel-health.htm, accessed on October 20, 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.*

Protection Agency (USEPA) is responsible 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.

The sections of the CAA which are most applicable to the Project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions). Title I provisions are implemented for the purpose of attaining NAAQS. Table IV.A-1 on page IV.A-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.[6]

CAA Title II pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline and automobile pollution control devices are examples of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

(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

6 *A small portion of Los Angeles county exceeded the Lead NAAQS during the 2007–2009 data period. However, in 2015, the SCAQMD lead monitoring network of eight regular monitoring sites and five source-specific sites did not exceed lead NAAQS. An attainment re-designation request is pending.*

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.A-1 on page IV.A-3 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.A-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 five 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

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 and State 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.

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operation. 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 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*.[7] 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

[7] *SCAQMD, Air Quality Analysis Handbook, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook, accessed on October 20, 2020.*

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 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 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 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. The 2016–2040 RTP/SCS also includes strategies focused on compact infill development, superior placemaking (the process of creating public spaces that are appealing), and expanded housing and transportation choices.[8] The 2016–2040 RTP/SCS is expected to produce

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[8] *SCAG, 2016–2040 RTP/SCS, p. 14*

benefits such as the development of better places to live and work through measures that encourage more compact development in certain areas of the region, varied housing options, bicycle and pedestrian improvements, and efficient transportation infrastructure.[9]

On September 3, 2020, SCAG's Regional Council adopted an updated RTP/SCS known as the 2020–2045 RTP/SCS or Connect SoCal.[10] As with the 2016–2020 RTP/SCS, the purpose of the 2020–2045 RTP/SCS is to meet the mobility needs of the six-county SCAG region over the subject planning period through a roadmap identifying sensible ways to expand transportation options, improve air quality and bolster Southern California long-term economic viability.[11] On October 30, 2020, the California Air Resources Board (CARB) accepted SCAG's determination that the SCS met the applicable state greenhouse gas emission targets. The goals and policies of the 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS. Hence, because the Project would be consistent with the 2016–2020 RTP/SCS as discussed later in this section, the Project would also be consistent with the 2020–2045 RTP/SCS.[12] Because the 2020–2045 RTP/SCS was adopted by SCAG subsequent to both circulation of the Notice of Preparation (NOP) for the Project on May 21, 2018, and approval by LADOT of the Transportation Assessment for the Project on August 8, 2020, this section and the balance of this Draft EIR provided detailed analysis of Project consistency with the 2016–2020 RTP/SCS.

(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 of Los Angeles General Plan (General Plan) was prepared in response to California Government Code, Title 7, Division 1, Chapter 3, Article 5, Section 65302, which

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[9] *SCAG, 2016–2040 RTP/SCS, p. 16*

[10] *SCAG, News Release: SCAG Regional Council Formally Adopts Connect SoCal, September 3, 2020.*

[11] *SCAG, News Release: SCAG Regional Council Formally Adopts Connect SoCal, September 3, 2020.*

[12] *For example, the Project would be consistent with both the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS because it would increase urban density within a High-Quality Transit Area (HQTA) immediately adjacent to a Metro light rail station and in close proximity to more than a dozen bus routes, would include transit-oriented development, and would implement TDM, all of which would reduce the City's per capita VMT and associated air emissions. Another example is that because the Project would be consistent with the City's existing General Plan land use designation and zoning of the Project Site, it has been accounted for in the regional growth projections in both the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS.*

requires each city and county to 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.

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

The California Air Toxics Program[13] 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.[14] In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants (HAPs) as TACs.

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

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

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 five 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.[15]

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, 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.

(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.

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[15] *CARB, In-Use Off-Road Diesel-Fueled Fleets Regulation, Overview, revised October 2016.*

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 $PM_{2.5}$ and, therefore, is considered a federal "non-attainment" area for these pollutants. In addition, Los Angeles County still fails to meet the national standard for lead and, therefore, is considered a federal "non-attainment" area for lead.

The 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, the 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[16] sufficiently to meet the upcoming O_3 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 O_3 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 O_3 standard. Although the existing air regulations and programs will continue to lower NO_X

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

emissions in the region, an additional 55 percent reduction in the year 2031 is necessary to attain the 8- hour O_3 standard.[17,18]

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 USEPA. The 2016 AQMP also includes the transportation programs, measures, and strategies in SCAG's 2016–2040 RTP/SCS[19] that are generally designed to reduce vehicle miles traveled (VMT). Appendix IV-C, Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures of the 2016 AQMP describes the regional land use and transportation strategies and the transportation control measures in SCAG's 2016–2040 RTP/SCS that are included in the 2016 AQMP.

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. 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. Figure IV.A-1 on page IV.A-18 shows the percent change in air quality along with demographic data for the four-county region from the 2016 AQMP. In particular, the graphic illustrates the trends since 1990 of the 8-hour O_3 levels, the 1-hour O_3 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 O_3 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.[20]

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[17] *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).*

[18] *SCAQMD, Final 2016 AQMP, 2017 (page ES-2). www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp, accessed on October 20, 2020.*

[19] *SCAG, Final 2016 RTP/SCS, http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx, accessed on October 20, 2020.*

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

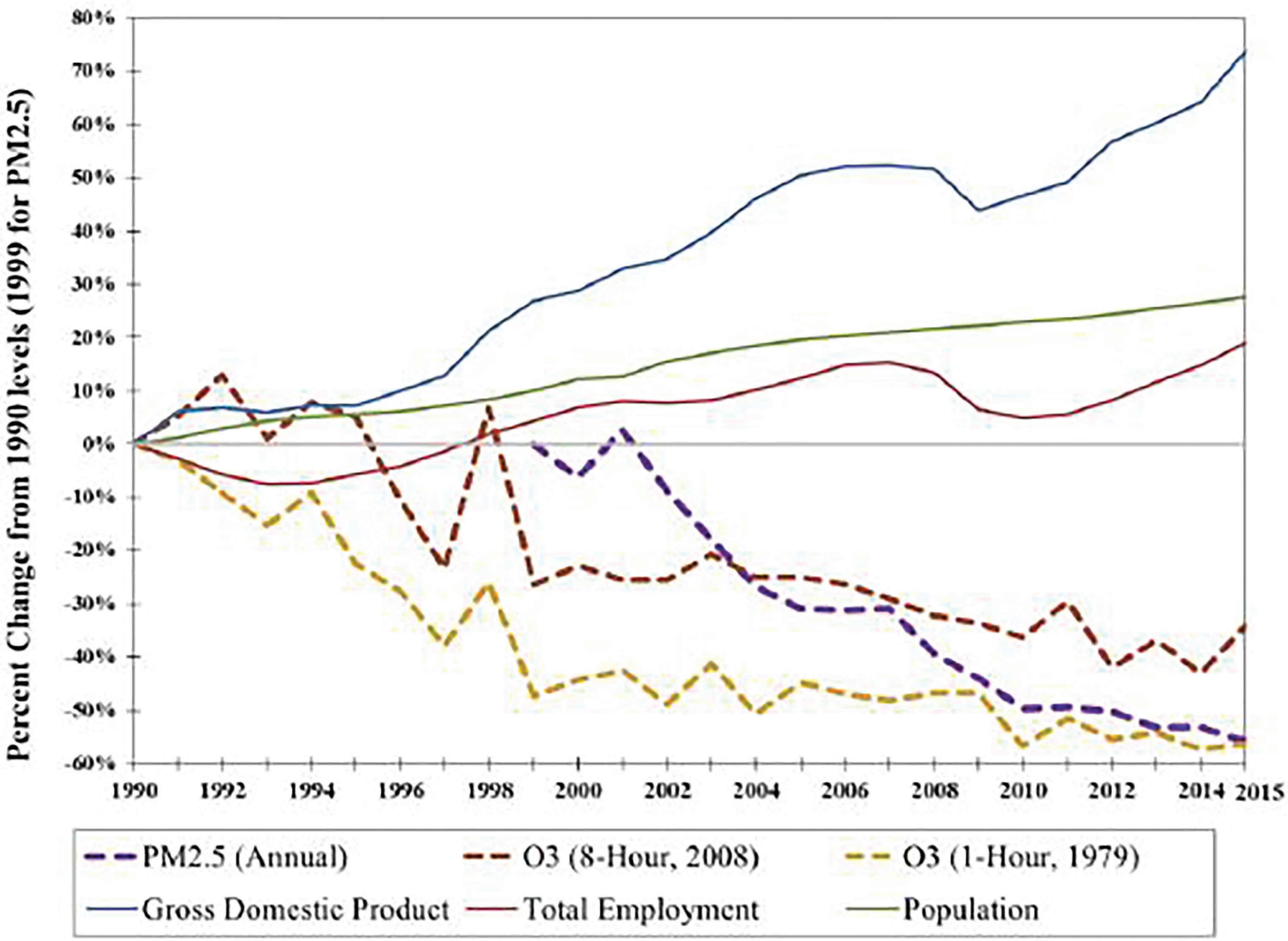

Figure IV.A-1
Ozone Trends

Source: SCAQMD, 2016.

The SCAQMD has released an Air Basin-wide air toxics study (MATES-IV).[21] 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 TACs, 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).[22]

As part of the MATES-IV study, the SCAQMD prepared a series of maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps' 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 from 200 to over 1,200 cancers per million over a 70-year duration.[23] 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.

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

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

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

(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.A-2 on page IV.A-21 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 1.5 miles east of the Project Site. Criteria pollutants monitored at this station include PM_{10}, $PM_{2.5}$, O_3, CO, NO_2, lead, and SO_4^{2-}. Table IV.A-2 on page IV.A-22 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.A-3 on page IV.A-24, based on the MATES-IV model, the calculated cancer risk in the Project area is approximately 1,830 in one million.[24] The cancer risk in this area is predominately related to nearby sources of diesel particulate (e.g., the US-101 and I-110 freeways). In general, the risk at the Project Site is comparable with other urbanized areas in Los Angeles.

(c) Surrounding Uses

As shown in Figure IV.A-4 on page IV.A-25, the land uses surrounding the Project Site include a mix of commercial, restaurant, and residential uses. Restaurant, hotel and residential uses are located west of the Project Site. An auto repair shop and residential uses are located north of the Project Site. South of the Project Site are structured parking and commercial uses. West of the Project Site, across Sunset Boulevard, are a motel, a nightclub, and multi-family residential uses.

(d) Sensitive Uses

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 vicinity of the Project Site include residential uses discussed above and are shown in Figure IV.A-4. All other air quality sensitive receptors are located at greater distances from the Project Site and would be

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

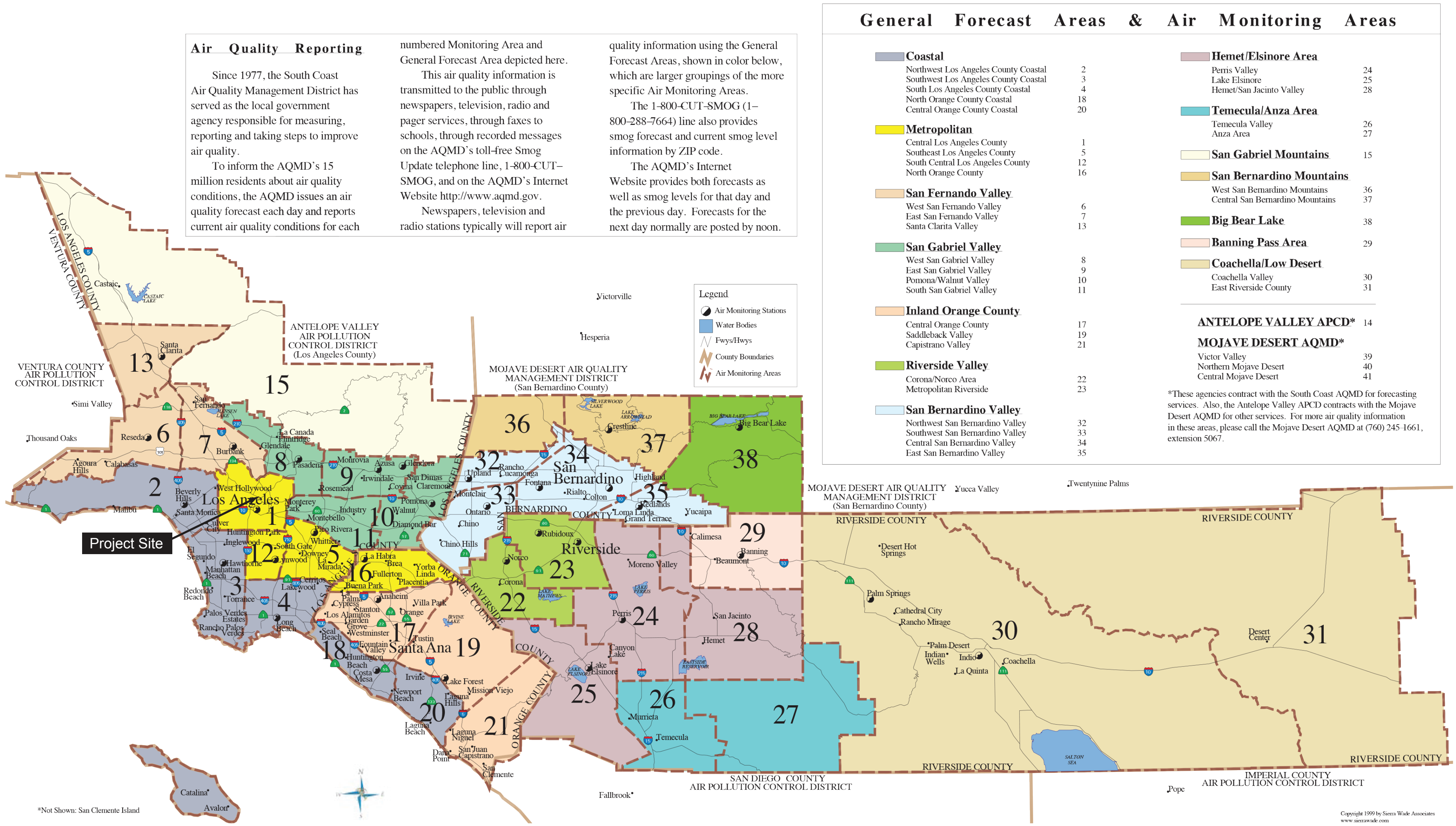

Figure IV.A-2

SCAQMD SRAs

Source: South Coast Air Quality Management District, 2017

Table IV.A-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.A-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)	0.01	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: SCAQMD Monitoring Data (2016–2018).

less impacted by Project emissions. Therefore, the Project's local (ambient) impacts are quantified only for the sensitive receptors depicted in Figure IV.A-4 on page IV.A-25.

(e) Existing Project Site Emissions

The Project Site is currently developed with five buildings, four of which are vacant. The Elysian apartment building is currently occupied and would remain on the Project Site but is not considered part of the Project. The vacant structures within the Project Site comprise approximately 114,600 square feet. 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. However, these area source and mobile emissions are generated by the Elysian apartment building which is not part of the Project. The vacant buildings to be removed generate minimal area emissions and do not generate vehicle trips, thus resulting in minimal mobile source emissions. To provide a conservative analysis of the Project, existing source emissions associated with the vacant buildings are considered minimal and assumed to be zero pounds per day (i.e., no offset emissions for comparison to Project).

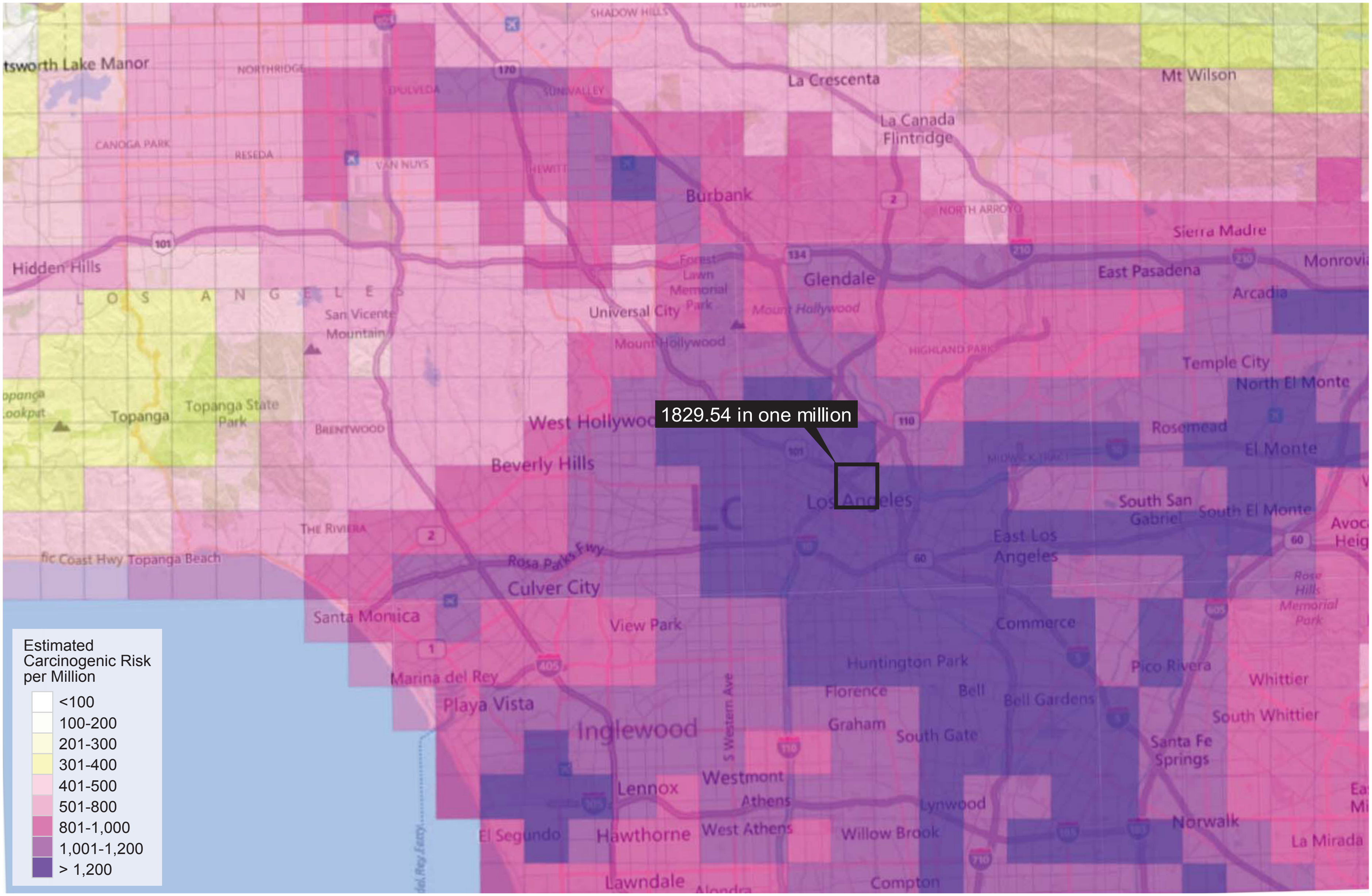

Figure IV.A-3

MATES IV Total Cancer Risk for Project Area

Source: South Coast AQMD, 2016.

Figure IV.A-4
Air Quality Sensitive Receptors Locations

Source: Apple Maps, 2019, Eyestone Environmental, 2019.

3. Project Impacts

a. Thresholds of Significance

(1) State CEQA Guidelines Appendix G

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.

(2) 2006 L.A. CEQA Thresholds Guide

To assist in answering the Appendix G Threshold questions above and the thresholds provided by AQMD, this analysis utilizes factors and considerations identified in the City's *L.A. CEQA Thresholds Guide*, as appropriate. The *L.A. CEQA Thresholds Guide* identifies the following factors to evaluate air quality impacts:

(a) Construction

(i) 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.

(ii) 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.

(iii) 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.

(iv) Other Mobile Source Emissions

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

(b) 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.

(c) 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.

(3) SCAQMD's CEQA Air Quality Handbook

To assist in answering the Appendix G Threshold questions and factors identified in the City's *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*, as identified below, to assess the significance of the Project's estimated air quality impacts. Specifically, Table IV.A-3 on page IV.A-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*,[25] 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.A-3.

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[25] *SCAQMD, CEQA Air Quality Handbook, 1993.*

Table IV.A-3
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: SCAQMD, 2015.

- Maximum on-site daily localized emissions exceed the localized significance thresholds (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.

(b) Operation

Based on the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*,[26] 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.A-3 on page IV.A-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).[27]

- Maximum on-site localized operational PM_{10} and $PM_{2.5}$ emissions exceed the incremental 24-hr threshold of 2.5 μg/m^3 or 1.0 μg/m^3 PM_{10} averaged over an annual period.[28]

- 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

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[26] *SCAQMD, CEQA Air Quality Handbook, 1993.*

[27] *SCAQMD, LST Methodology, June 2003, revised July 2008.*

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

- 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:[29]

- The Project emits carcinogenic or toxic air contaminants that exceed the maximum incremental chronic and acute cancer risk as provided in Table IV.A-3 on page IV.A-29.

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: [30]

- 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.[31] 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*,[32] the following criteria are used to evaluate the Project's consistency with the SCAQMD and SCAG regional plans and policies, including the AQMP:

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29 *SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a project) and Chapter 10 (Assessing Toxic Air Pollutants), April 1993.*

30 *SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a project) and Chapter 10 (Assessing Toxic Air Pollutants), 1993.*

31 *SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a project) and Chapter 10 (Assessing Toxic Air Pollutants), 1993.*

32 *SCAQMD, CEQA Air Quality Handbook, Chapter 12, Assessing Consistency with Applicable Regional Plans, 1993.*

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

The Project's impacts with respect to these criteria are discussed to assess the consistency with the SCAQMD's AQMP. 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.[33] 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*

33 *Jillian Wong, SCAQMD CEQA Specialist, personal communication, August 8, 2016.*

the project-specific thresholds are generally not considered to be cumulatively significant.[34]

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

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.

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 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*.[35]

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

34 *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. Appendix D, South Coast Air Quality Management District, August 2003.*

35 *SCAQMD, Air Quality Analysis Handbook, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook, accessed on October 20, 2020.*

use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

(1) Construction

Construction of the Project has the potential to generate temporary pollutant emissions through the use of heavy-duty construction equipment, such as excavators and 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[36] (OFFROAD) and EMission FACtor model[37] (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.

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[36] *California Air Resources Board, Mobile Source Emissions Inventory - Off-road Diesel Emission Factors, last updated by CARB on February 7, 2019.*

[37] *California Air Resources Board, Mobile Source Emissions - Categories, last updated by CARB on August 23, 2018.*

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 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 C 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 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.[38] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X; CO; PM_{10}; and $PM_{2.5}$.[39] 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

38 SCAQMD, LST Methodology Appendix C-Mass Rate LST Look-Up Table, October 2009.

39 SCAQMD, LST Methodology, p. 1-4.

determine which pollutants require detailed analysis.[40] 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 performed to determine if the Project's local emissions exceed applicable significance thresholds.

(2) Operation

(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 software 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 Assessment for the Project which was conducted consistent with Los Angeles Department of Transportation's (LADOT's) *Transportation Impact Study Guidelines*.[41] 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

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

[41] *Gibson Transportation Consulting, Inc., Transportation Assessment for the 1111 Sunset Boulevard Mixed Use Project, City of Los Angeles, October 20, 2020.*

Factors. The emissions are based on the horsepower rating of the diesel generator and the number of hours operated per year for testing purposes.

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.[42] 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 C 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,[43] primarily when idling at intersections.[44,45] 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.[46] Currently, the CO standard in California is a maximum of 3.4 grams/mile for passenger

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[42] *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).*

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

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

[45] *SCAQMD. 2003. Air Quality Management Plan.*

[46] *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 on October 20, 2020.*

cars (with provisions for certain cars to emit even less).[47] With the turnover of older 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 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan).[48] 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.[49] 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.[50,51] 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

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[47] *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.*

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

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

[50] *Metro 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 Interstate 405.*

[51] *Metro, Congestion Management Program for Los Angeles County. Exhibit 2-6 and Appendix A, 2004.*

hotspot based on the initial screening, detailed modeling may be performed using 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)

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.[52] 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.

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

No specific project design features are proposed with regard to air quality. The Project would incorporate project design features to support and promote environmental sustainability as discussed under Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. While these features are designed primarily to reduce greenhouse gas (GHG) emissions, they would also serve to reduce criteria air pollutants discussed herein.

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

d. Analysis of Project Impacts

As set forth in Section II, Project Description, of this Draft EIR, the Project proposes two development scenarios—the Mixed Use Development Scenario and the No-Hotel Development Scenario. Under the Mixed Use Development Scenario, up to 737 residential units, up to 180 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area are proposed. Under the No-Hotel Development Scenario, a maximum of up to 827 residential units would be constructed along with up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area. The additional residential units (under the No-Hotel Development Scenario) would be located in the Sunset Buildings and would replace the 180 hotel rooms proposed by the Mixed Use Development Scenario. Regardless of the removal of the hotel, the Project design would remain as proposed. Specifically, the total floor area, building heights, massing, and footprint would be the same under both development scenarios. In addition, construction activities including depth of excavation, overall amount of grading, and the types of equipment to be used would be the same under both development scenarios. The following analysis accounts for both development scenarios and the term "Project" is used unless stated otherwise.

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

(1) Impacts 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*, the following criteria are required to be addressed in order to determine the Project's consistency with applicable SCAQMD and SCAG policies:

- Criterion 1: 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.
- Criterion 2: 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 land use policies?

(i) Criterion 1

As discussed below under Threshold (c), localized concentrations of NO_2 as NO_X, CO, PM_{10}, and $PM_{2.5}$ were analyzed for the Project. SO_2 emissions would be negligible during construction and long-term operations as there are no Project sources of SO_2, and, therefore, would not have the potential to cause or affect a violation of the SO_2 ambient air quality standard. Additionally, 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.A-8, Table IV.A-9, and Table IV.A-10 on pages IV.A-59, IV.A-61, and IV.A-62, respectively, in the analysis below, the increases in localized NO_2 as NO_X, CO, PM_{10} and $PM_{2.5}$ emissions during construction and operations would not exceed the SCAQMD-recommended localized significance thresholds at sensitive receptors in proximity to the Project Site.

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.[53] As indicated below, 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. **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.**

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[53] *SCAQMD, CEQA Air Quality Handbook, Chapter 12, Assessing Consistency with Applicable Regional Plans, 1993.*

(ii) Criterion 2

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. 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's General Plan and SCAG's 2016–2040 RTP/SCS.

The General Plan serves as a comprehensive, long-term plan for future development of the City. SCAG's 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.

The Project Site is located within the Central City North Community Plan area, which encourages mixed use developments along commercial corridors in the area.[54] As discussed previously, the AQMP is based on the 2016–2040 RTP/SCS, which incorporates data from general plans, as well as local land use data, such as the Central City North Community Plan. As discussed above, the Project-related population and employment growth would be well within the Citywide growth projections. As such, the Project would be consistent with the growth projections in the AQMP.

As provided in Section IV.J, Population, Housing, and Employment, of this Draft EIR, according to SCAG's 2016–2040 RTP/SCS, the forecasted population for the City of Los Angeles Subregion in 2018 is approximately 4,009,193 persons.[55] In 2028, the projected

[54] *City of Los Angeles, Central City North Community Plan, Goal 1, Objective 1-2.1, p. III-3.*

[55] *Based on a linear interpolation of 2012–2040 data.*

year of full Project occupancy, the City of Los Angeles Subregion is anticipated to have a population of approximately 4,282,014 persons.[56] Based on employee generation rates from the City of Los Angeles VMT Calculator Documentation, the Mixed Use Development Scenario would generate a residential population of 1,728 residents which represents 0.63 percent of the population growth forecasted by SCAG in the City of Los Angeles between 2018 and 2028.[57] The Project under the No-Hotel Development Scenario is estimated to generate a residential population of 1,931 residents at full buildout.[58] The estimated new residents generated by the Project would represent approximately 0.71 percent of the population growth forecasted by SCAG in the City of Los Angeles Subregion between 2018 and 2028.

Development of the Project was estimated to generate new employment positions on the Project Site. Based on employee generation rates from the City of Los Angeles VMT Calculator Documentation, the Mixed Use Development Scenario would generate up to 582 new employment positions[59] on the Project Site and the No-Hotel Development Scenario would generate up to approximately 492 employment positions[60] on the Project

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[56] *Based on a linear interpolation of 2012–2040 data.*

[57] *Based on City of Los Angeles VMT Calculator Documentation (Version 1.3), May 2020, Table 1: Land Use and Trip Generation Base Assumptions. The residential generation rate of 2.25 residents per dwelling unit for "Multi-Family Residential" land use is applied to the 661 dwelling units and the residential generation rate of 3.14 residents per dwelling unit for "Affordable Housing—Family" land use is applied to the 76 dwelling units. As documented in Appendix A, VMT Analysis LADOT Calculator Worksheets, of the Project's Transportation Analysis (Appendix Q of this Draft EIR), the Mixed Use Development Scenario would generate approximately 1,728 residents.*

[58] *Based on City of Los Angeles VMT Calculator Documentation (Version 1.3), May 2020, Table 1: Land Use and Trip Generation Base Assumptions. The residential generation rate of 2.25 residents per dwelling unit for "Multi-Family Residential" land use is applied to the 751 dwelling units and the residential generation rate of 3.14 residents per dwelling unit for "Affordable Housing—Family" land use is applied to the 76 dwelling units. As documented in Appendix A, VMT Analysis LADOT Calculator Worksheets, of the Project's Transportation Analysis (Appendix Q of this Draft EIR), the No-Hotel Development Scenario would generate approximately 1,931 residents.*

[59] *Based on the City of Los Angeles VMT Calculator Documentation Guide, Table 1, May 2020, the employee generation rate 0.5 employee per room for "Hotel" land use is applied to the 180 hotel rooms, the rate 0.002 employee per square foot for "General Retail" land use is applied to the 18,200 square feet of commercial uses, the rate 0.004 employee per square foot for "Supermarket" land use is applied to the 27,300-square-foot grocery store, the rate 0.001 employee per square foot for "Health Club" land use is applied to the 14,500-square-foot health club/spa, the rate 0.004 employee per square foot for "High-Turnover Sit-Down Restaurant" land use is applied to the 35,000-square-foot restaurant, and the rate 0.004 employee per square foot for "General Office" land use is applied to the 48,000 square feet of office uses. As documented in Appendix A, VMT Analysis LADOT Calculator Worksheets, of the Project's Transportation Analysis (Appendix Q of this Draft EIR), the Mixed Use Development Scenario would generate approximately 582 employees.*

[60] *Based on the City of Los Angeles VMT Calculator Documentation Guide, Table 1, May 2020, the employee generation rate 0.002 employee per square foot for "General Retail" land use is applied to the 18,200 square feet of commercial uses, the rate 0.004 employee per square foot for "Supermarket" land use is applied to the 27,300-square-foot grocery store, the rate 0.001 employee per square foot for*

(Footnote continued on next page)

Site.[61] According to SCAG's 2016–2040 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2018 is approximately 1,797,693 employees.[62] In 2028, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 1,966,514 employees.[63] Thus, the Mixed Use Development Scenario's estimated 582 employees would constitute approximately 0.34 percent of the employment growth forecasted between 2018 and 2028 and the No-Hotel Development Scenario's estimated 492 employees would constitute approximately 0.29 percent of the employment growth forecasted between 2018 and 2028. Because similar projections form the basis of the 2016 AQMP, the Project would be consistent with the projections in the AQMP. Refer to Section IV.H, Land Use and Planning, of this Draft EIR, for additional information regarding consistency with SCAG's 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, the Project would also comply with CARB regulations regarding limiting truck idling and fleet rules which require specific emissions standards according to fleet size. The Project also would incorporate project design features to support and promote environmental sustainability as discussed in Section IV.E, 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. Mitigation Measures Air MM-1 through MM-5 would further reduce pollutant emissions. Furthermore, with compliance with the regulatory requirements identified above and in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, less than significant air quality impacts would occur.

- To what extent is project development consistent with the land use policies set forth in the AQMP?

"Health Club" land use is applied to the 14,500-square-foot health club/spa, the rate 0.004 employee per square foot for "High-Turnover Sit-Down Restaurant" land use is applied to the 35,000-square-foot restaurant, and the rate 0.004 employee per square foot for "General Office" land use is applied to the 48,000 square feet of office uses. As documented in Appendix A, VMT Analysis LADOT Calculator Worksheets, of the Project's Transportation Analysis (Appendix Q of this Draft EIR), the No-Hotel Development Scenario would generate approximately 492 employees.

[61] *The areas of the hotel, office, and commercial uses would not be exceeded under any of the scenarios proposed.*

[62] *Based on a linear interpolation of 2012–2040 data.*

[63] *Based on a linear interpolation of 2012–2040 data.*

With regard to land use developments, such as the Project, the AQMP's land use policies focus on the reduction of vehicle trips and VMT. As discussed in Section IV.H, Land Use and Planning, of this Draft EIR, the Project would implement a number of land use policies of the City and SCAG that would reduce vehicle trips and VMT.

The Project would be designed and constructed to incorporate features to support and promote environmental sustainability. The Project is an infill development within an existing urbanized area that would concentrate new residential, retail and office uses within a High Quality Transit Area (HQTA).[64] There are various local, limited stop and rapid bus routes in the immediate vicinity of the Project Site. In addition, 37 local bus routes, including 11 Metro and 26 bus routes from various agencies such as LADOT Commuter Express, DASH, and Foothill Transit, run within 0.25 mile of the Project Site. The Project would also provide required short- and long-term bicycle parking spaces in compliance with the requirements of the Los Angeles Municipal Code.

As further discussed in Section IV.E, 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 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.[65] The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project

[64] *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.*

[65] *Environmental Protection Agency, Mixed Use Trip Generation Model. www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed on October 20, 2020.*

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 C, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 38 percent reduction in overall VMT and resultant pollutant 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 the SCAG's RTP/SCS and SCAQMD's AQMP land use policies. **Based on the Project's consistency with the AQMP's population growth and the Project's less-than-significant localized impacts, as well as 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 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 Air Quality Element goals, objectives and policies, as stated above. Specifically, the Mixed Use Development Scenario would provide 436 bicycle parking spaces consisting of 99 short-term spaces and 337 long-term spaces. The No-Hotel Development Scenario would provide 421 bicycle parking spaces, including 340 long-term and 81 short-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 patterns in the vicinity of the Project Site 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.A-4 on page IV.A-48 which identifies specific goals and polices of the City's General Plan and demonstrates the Project's consistency with these goals.

Based on the above, the Project is consistent with applicable policies of the City of Los Angeles Air Quality Element. Refer to Section IV.H, 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, as discussed above, 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.

Table IV.A-4
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.	**Consistent.** The Project Site is located in an area in proximity to a regional job center (i.e., Downtown Los Angeles) and other residential developments thereby reducing the distance traveled for future residents and employees, respectively. Future residents and employees on the Project Site would also have access to 37 local bus lines as well as use of bicycle parking spaces provided on the Project Site. The Project's proximity to both job centers and housing, and the option to use alternative modes of transportation would reduce reliance on single-occupant vehicles, consistent with this goal.
Objective 2.1: It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.	**Consistent.** The Project would be located within 1 mile from Union Station and is served by 37 local bus lines. The Project would locate residential uses near major employment centers (Downtown Los Angeles) 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.	**Consistent.** The Project would be located within 1 mile from Union Station and is served by 37 local bus lines. The Project would incorporate pedestrian pathways that would connect to the existing sidewalk network. In addition, the Mixed Use Development Scenario would provide 436 bicycle parking spaces, including 99 short-term spaces and 337 long-term spaces. The No-Hotel Development Scenario would provide 421 bicycle parking spaces, including 340 long-term and 81 short-term spaces
Goal 4: Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.	**Consistent.** The Project would reduce VMT due to its infill location, development of residential uses near major employment areas, and access to public transportation within 0.25 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.	**Consistent.** The Project analysis of potential air quality impacts relied upon the numeric indicators established by the SCAQMD, which considers attainment of the ambient air quality standards. The Project also incorporates 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.	**Consistent.** The Project environmental review and approval would occur at the local level.
Objective 4.2: It is the objective of the City of Los Angeles to reduce vehicle trips and VMT associated with land use patterns.	**Consistent.** The Project would reduce VMT due to its infill location, development of residential uses near major employment areas, and access to public transportation within 0.25 mile of the Project Site.
Policy 4.2.2: Improve accessibility for the City's residents to places of employment,	**Consistent.** The Project would reduce VMT due to its infill location, development of residential uses near major

Table IV.A-4 (Continued)
Project Consistency with City of Los Angeles General Plan

Recommendation	Analysis of Project Consistency
shopping centers and other establishments.	employment areas, and access to public transportation within 0.25 mile of the Project Site. The Project would also be located within 0.5 mile of off-site commercial, retail, restaurant, and entertainment uses, potentially reducing residential trips.
Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**Consistent.** The Project would incorporate pedestrian pathways that would connect to the existing sidewalk network. In addition, the Mixed Use Development Scenario would provide 436 bicycle parking spaces, including 99 short-term spaces and 337 long-term spaces. The No-Hotel Development Scenario would provide 421 bicycle parking spaces, including 340 long-term and 81 short-term spaces. The Project would also comply with City requirements for providing electric vehicle charging capabilities and electric vehicle charging stations within the proposed parking areas.
Policy 4.2.4: Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	**Consistent.** The environmental review conducted for the Project includes an analysis of air quality impacts; and the decision-maker(s) for the discretionary actions would be responsible for determining that the environmental review was conducted in compliance with CEQA.
Policy 4.2.5: Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	**Consistent.** The Project would occupy an infill location within 0.25 mile of existing public transportation, which would help to promote transit usage and in turn reduce the number of vehicle trips to and from the Project Site. In addition, the Mixed Use Development Scenario would provide 436 bicycle parking spaces, including 99 short-term spaces and 337 long-term spaces. The No-Hotel Development Scenario would provide 421 bicycle parking spaces, including 340 long-term and 81 short-term spaces. Furthermore, the Project would develop and implement a Transportation Demand Management (TDM) program to promote non-auto travel and reduce the use of single-occupant vehicle trips for residents and office employees.[a]

[a] *Consistent with LADOT methodology, VMT reducing measures and TDM are not included in the Project's Transportation Assessment. In order to account for these measures within the air quality, greenhouse gas and energy analyses, a separate VMT analysis was prepared. As part of this separate VMT analysis, VMT reducing measures were accounted for as mitigation measures.*

Source: Eyestone Environmental, 2020.

(2) Mitigation Measures

Project-level impacts related to Threshold (a) would be less than significant during construction and operation of the Project. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to Threshold (a) during construction and operation of the Project would be less than significant without mitigation.

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) Impacts Analysis

(a) Regional Emissions

(i) Construction

As discussed previously, the Project proposes two development scenarios each of which would comprise a maximum of 994,982 square feet of floor area. As the square footage would be identical for both development scenarios, construction activities such as excavation, demolition and building structures would also be similar in terms of schedule and number of equipment and trucks. Therefore, analysis of construction emissions presented below is applicable to both development scenarios.

As described in Section II, Project Description, of this Draft EIR, Project construction would occur in sequential phases (e.g. demolition, then grading and foundation, then building construction) with buildout expected to be completed in 2028. For purposes of conservatively analyzing construction impacts and to ensure that potential overlap of construction phases is accounted for, it was assumed that the Project's construction schedule could be compressed and be completed in 44 months with overlapping construction phases. Based on SCAQMD factors, the construction equipment and truck fleet mix will emit less pollution in future years due to more stringent emissions control regulations. As construction activities for the Project are evaluated based on an earlier start date, the emissions presented are more conservative. Under this conservative construction schedule that is intended to address potential overlapping construction activities, Project construction would begin with demolition followed by grading and excavation activities. The conservative schedule assumes that while excavation is occurring on one portion of the site, concrete activities may be occurring on other portions of the site resulting in overlapping activities (excavation and concrete). Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. Approximately 472,000 cubic yards of export material (e.g., concrete and asphalt surfaces) and soil would be hauled from the Project Site during excavation.

As construction air quality impacts are evaluated on a worst-case day, the shorter construction duration would assume more intensive activities on a daily basis as well as overlapping activities. Therefore, as a conservative assumption, it was assumed that construction would overlap and be completed within 44 months. For detailed construction assumptions, see Appendix C of this Draft EIR.

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. 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 C (CalEEMod Construction Output file).

As presented in Table IV.A-5 on page IV.A-52, construction-related daily maximum regional construction emissions (i.e., combined on-site and off-site emissions) would not exceed the SCAQMD daily significance thresholds for VOC, CO, SO_X, $PM_{10,}$ or $PM_{2.5}$. Maximum unmitigated construction emissions would exceed the SCAQMD daily significance threshold for NO_X as a result of overlapping phases (i.e., combined demolition and grading/excavation, combined grading/excavation and concrete foundation, and combined grading/excavation and concrete mat foundation) over an approximate 12-month duration. 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 measures.**

(ii) Operation

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

Table IV.A-5
Estimate of Maximum Regional Project Daily Construction Emissions (pounds per day)[a]

Construction Year	VOC[b]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Regional Construction Emissions						
Year 1	12	239	98	<1	21	7
Year 2	10	76	92	<1	10	5
Year 3	39	57	74	<1	9	4
Year 4	39	54	73	<1	9	4
Maximum Unmitigated Construction Emissions[c]	**39**	**239**	**98**	**<1**	**21**	**7**
SCAQMD Daily Significance Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Over/(Under)	**(36)**	**139**	**(452)**	**(149)**	**(129)**	**(48)**
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 C (CalEEMod Output) of this document.*

[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 as well as implementation of the project design features identified above.*

Source: Eyestone Environmental, 2020.

Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. While these features are 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.E, Greenhouse Gas Emissions, of this Draft EIR.

Table IV.A-6 on page IV.A-53 provides Project operational emissions with incorporation of project design features for the Mixed Use Development Scenario. Table IV.A-7 on page IV.A-54 provides Project operational emissions for the No-Hotel Development Scenario As shown in Table IV.A-6 and Table IV.A-7, regional operational emissions for the Mixed Use Development Scenario and the No-Hotel Development Scenario would not exceed the SCAQMD's daily regional operational thresholds. **Therefore, regional operational emissions resulting from the Project would result in a less-than-significant air quality impact.**

Table IV.A-6
Estimate of Maximum Regional Project Daily Operational Emissions (Mixed Use Development Scenario)—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	24	1	61	<1	<1	<1
Energy (Natural Gas)	<1	5	3	<1	<1	<1
Mobile	9	45	99	<1	44	12
Stationary	<1	<1	1	<1	<1	<1
Total Proposed Uses Emissions	**33**	**51**	**165**	**<1**	**44**	**13**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	**(22)**	**(4)**	**(385)**	**(150)**	**(106)**	**(42)**
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 C (CalEEMod Output) of this Draft EIR.*

Source: Eyestone Environmental, 2020.

(b) 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.

(i) 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 (c) and shown in Table IV.A-8 on page IV.A-59 in the analysis below, Project-related construction emissions would not exceed localized thresholds. **Therefore, localized construction emissions resulting from the Project would result in a less-than-significant air quality impact.**

Table IV.A-7
Estimate of Maximum Regional Project Daily Operational Emissions (No-Hotel Development Scenario)—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	24	<1	68	<1	<1	<1
Energy (Natural Gas)	<1	5	3	<1	<1	<1
Mobile	8	42	94	<1	41	11
Stationary	<1	<1	<1	<1	<1	<1
Total Proposed Uses Emissions	**33**	**48**	**166**	**<1**	**42**	**12**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	**(22)**	**(7)**	**(384)**	**(150)**	**(108)**	**(43)**
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 C (CalEEMod Output) of this Draft EIR.*

Source: Eyestone Environmental, 2020.

(ii) 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 (c) below, Project-related operational emissions from on- and off-site sources would not exceed localized thresholds. **Therefore, localized operational emissions resulting from the Project would result in a less-than-significant air quality impact.**

(c) 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.A-5, Table IV.A-6, and Table IV.A-7 on pages IV.A-52, IV.A-53, and IV.A-54, respectively, Project daily emissions at the Project Site would exceed the SCAQMD's regional significance threshold for NO_X during construction of the Project. Although the Air Basin is not in federal or state attainment for NOx, it is a federal and state nonattainment for O_3. NOx is a precursor to the formation of O_3. Consequently, the Project would result in a cumulatively considerable increase of NOx and impacts due to construction-related regional NO_X emissions would be significant without incorporation of mitigation measures.

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

(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 during construction, particularly those impacts related to NO_X emissions:

Mitigation Measure AIR-MM-1: All off-road diesel-powered equipment greater than 50 hp used during Project demolition, grading/excavation, and concrete foundation activities shall meet USEPA Tier 4 final emissions standards.

Mitigation Measure AIR-MM-2: The Project representative shall require operator(s)/construction contractor(s) to commit to using 2010 model year or newer engines that meet CARB's 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NO_X emissions or newer, cleaner trucks for: (1) haul trucks associated with demolition and grading activities; and (2) concrete delivery trucks during concrete mat foundation pours. To monitor and ensure 2010 model year or newer trucks are used at the Project Site, the Lead Agency shall require that truck operator(s)/ construction contractor(s) maintain records of trucks during the applicable construction activities associated with the Project and make these records available to the Lead Agency upon request.

Mitigation Measure AIR-MM-3: All construction equipment shall be properly tuned and maintained in accordance with the manufacturer's specifications. Prior to the commencement of any construction activities, contractors must submit documentation to demonstrate the ability to maintain all construction equipment properly tuned and maintained. The contractor shall keep documentation on-site demonstrating that the equipment has been maintained in accordance with the manufacturer's specifications.

Mitigation Measure AIR-MM-4: Contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, regardless of their weight, trucks and vehicles in loading and unloading queues shall have their engines turned off after five minutes when not in use, to reduce vehicle emissions.

Mitigation Measure AIR-MM-5: To the extent possible, petroleum-powered construction activity shall utilize electricity from power poles rather than temporary diesel power generators and/or gasoline power generators. If stationary petroleum-powered construction equipment, such as generators, must be operated continuously, such equipment shall be located at least 100 feet from sensitive land uses, whenever possible.

Mitigation Measure AIR-MM-6: The Project would include the use of solar-powered generators, to the extent commercially available and feasible, should generators be required during construction.

(3) Level of Significance After Mitigation

(a) Construction

Mitigation Measure AIR-MM-1, which requires the use of EPA Tier 4 final emissions compliant equipment, would reduce peak daily construction NO_X emissions. Mitigation Measure AIR-MM-2, which requires use of Model Year 2010 and newer trucks during demolition, grading and concrete pouring activities would also reduce Project construction NO_X emissions. With implementation of Mitigation Measures AIR-MM-1 and AIR-MM-2, daily construction NO_x emissions would be reduced from 239 pounds per day to 106 pounds per day. However, the Project's short-term construction activities would still exceed the SCAQMD significance threshold of 100 pounds per day of NO_X. Mitigation Measures AIR-MM-3 through AIR-MM-6, presented above, would also reduce criteria pollutant emissions (including NO_x) during Project construction activities. However, quantification of these mitigation measures is not feasible due to factors such as the number of construction equipment manufacturers that each have their own specifications regarding engine tuning and the extent of the use of solar generators). Although Mitigation Measures AIR-MM-3 through AIR-MM-6 are included as part of the Project, the level of emissions after mitigation presented above does not fully account for these measures. Therefore, the mitigated Project construction emissions presented above, and the resulting impact conclusions are conservative.

Based on the above, Project construction NOx emissions would still exceed the SCAQMD's significance threshold of 100 pounds per day, resulting in significant and unavoidable Project-level and cumulative regional impacts. Project construction emissions for VOC, CO, SO_X, PM_{10}, and $PM_{2.5}$ would remain below SCAQMD significance thresholds.

(b) Operation

Project-level impacts related to Threshold (b) during operation of the Project would be less than significant without mitigation.

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

(1) Impacts Analysis

(a) Construction

(i) 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.[66] 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 (2015–2017) for the Project area presented in Table IV.A-2 on page IV.A-22. Although the trend shown in Table IV.A-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., 2020–2023). 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 (2015—2017).

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 5-acre site. Although the Project Site is larger than five acres, it was conservatively assumed that all on-site emissions would occur within a 5-acre area. As discussed above, this approach is recommended by SCAQMD for a screening-level analysis and would also over-predict potential localized impacts as more pollutant emissions would occur within a smaller area and within closer proximity to potential sensitive receptors.

Potential impacts were evaluated at the closest off-site sensitive receptor, which are residential uses located to the north, approximately 20 meters from the Project Site.[67] Ambient air quality standards for NOx and CO have averaging times of 1-hour and 8-hour

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

[67] As discussed above, the SCAQMD recommends use of the 25-meter LSTs where receptors are within 25 meters of construction activities. Therefore, the impacts provided in Table IV.A-7 on page IV.A-59 would be indicative of impacts to the Elysian apartment building (located within the Project Site, but not part of the Project).

respectively. The localized analysis also takes into account non-residential (commercial) uses at which sensitive individuals may reside for short durations (1 to 8 hours). 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.[68]

The maximum daily localized emissions from Project construction and LSTs are presented in Table IV.A-8 on page IV.A-59. As presented in Table IV.A-8, **maximum construction emissions would not exceed the SCAQMD localized screening thresholds. Therefore, on-site construction activities would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant impact with regard to localized emissions.**

(ii) 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 of 891 passenger car equivalent (PCE) trips which includes employee, delivery, and haul truck trips during building construction.[69] The highest average daily trips at an intersection under the Existing Condition would be approximately 40,680 trips at the Beaudry Avenue and Sunset Boulevard intersection.[70] Conservatively assuming that all of the Project construction would drive through this intersection would result in approximately 41,571 trips, which is significantly below the daily traffic volumes that would be expected to generate CO exceedances as evaluated in the 2003 AQMP.[71] 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 Beaudry Avenue and Sunset Boulevard 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**

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

[69] *Gibson Transportation Consulting Inc., Transportation Assessment for the 1111 Sunset Boulevard Mixed Use Project, City of Los Angeles, October 2020.*

[70] *Assumes that peak hour intersection volumes represent 10 percent of the daily volumes.*

[71] *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.*

Table IV.A-8
Estimate of Maximum Localized Daily Project Construction Emissions–Unmitigated (pounds per day)[a, b]

Construction Year	NO_X	CO	PM_{10}	$PM_{2.5}$
Year 1	63	73	16	4
Year 2	57	72	3	3
Year 3	43	56	2	2
Year 4	40	56	2	2
Maximum Unmitigated Daily Localized Emissions	**63**	**73**	**16**	**4**
SCAQMD Localized Significance Thresholds[c]	**97**	**3,045**	**69**	**18**
Over/(Under)	**(34)**	**(2,972)**	**(53)**	**(14)**
Exceed Threshold?	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

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

[b] *Unmitigated emissions assumes compliance with SCAQMD Rule 403, which is a requirement for construction projects within the South Coast Air Basin. While the measure is not considered mitigation, CalEEMod includes the measure under mitigation measures and, therefore, is reflected in the "mitigated" results within the CalEEMod output file. Unmitigated emissions also assume implementation of the project design features identified above.*

[c] *Potential localized construction impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The closest existing sensitive receptor is comprised of residential uses 20 meters to the south of the Project Site. Non-residential (commercial) receptors adjacent to the site were also taken into account for NOx and CO. 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.

concentrations. As a result, impacts related to localized construction mobile-source CO emissions would be 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 four 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 health risk assessment (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. Therefore, Project-related TAC impacts during construction would be less than significant.

(b) Operation

(i) 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.A-9 on page IV.A-61 for the Mixed Use Development Scenario and Table IV.A-10 on page IV.A-62 for the No-Hotel Development Scenario. The SCAQMD LST mass rate look-up tables were used to evaluate potential localized impacts. As shown in Table IV.A-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.**

(ii) 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 under the Mixed Use Development Scenario, the highest average daily trips at an intersection would be approximately 53,300 trips at the Beaudry Avenue and Sunset Boulevard intersection,[72] which is significantly below the daily traffic volumes that would be expected to generate CO exceedances as evaluated in the 2003 AQMP.[73] Traffic volumes under the No-Hotel Development Scenario would be less than the Mixed Use Development Scenario. 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 Beaudry Avenue and Sunset Boulevard 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

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[72] *Assumes that peak hour intersection volumes represent 10% of the daily volumes.*

[73] *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.*

Table IV.A-9
Estimate of Maximum Localized Project Daily Operational Emissions (Mixed Use Development Scenario)—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	61	<1	<1
Energy (Natural Gas)	5	3	<1	<1
Stationary	<1	1	<1	<1
On-Site Total	**6**	**65**	**1**	**1**
SCAQMD Significance Threshold[b,c]	**97**	**3,045**	**17**	**5**
Over/(Under)	**(91)**	**(2,980)**	**(16)**	**(4)**
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 C (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 approximately 20 meters south of the Project Site. Non-residential (commercial) receptors adjacent to the site were also taken into account for NOx and CO. 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.

and cleaner fuels.[74] In 2003, the 1-hour background CO concentration was 5 ppm and has decreased to 1.9 ppm in 2017.[75] 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 Appendix C of this Draft EIR. **The Project off-site operational activities, including the highest average daily trips, would not expose sensitive receptors to substantial CO concentrations. As a result, impacts related to localized mobile-source CO emissions are considered less than significant.**

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

[75] *SCAQMD, SCAQMD Monitoring Data (2015–2017).*

Table IV.A-10
Estimate of Maximum Localized Project Daily Operational Emissions (No-Hotel Development Scenario)—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	68	<1	<1
Energy (Natural Gas)	5	3	<1	<1
Stationary	<1	1	<1	<1
On-Site Total	**6**	**72**	**1**	**1**
SCAQMD Significance Threshold[b,c]	**97**	**3,045**	**17**	**5**
Over/(Under)	**(92)**	**(2,973)**	**(16)**	**(4)**
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 C (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 approximately 20 meters south of the Project Site. Non-residential (commercial) receptors adjacent to the site were also taken into account for NOx and CO. 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.

(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).[76] The SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.[77] 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

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

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

of new TAC sources in proximity to existing sensitive land uses. The Project would be consistent with this siting guidance because the Project would not include any major sources of TACs or place sensitive uses near TACs consistent with CARB and SCAQMD guidelines.[78]

On-Site Sources

The primary sources of potential air toxics associated with Project operations include DPM 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). However, these activities, and the land uses associated with the Project, are not considered land uses that generate substantial TAC emissions. It should be noted that in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* (2005), SCAQMD recommends that HRAs be conducted for substantial individual sources of DPM (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.[79] Based on this guidance, the Project under the Mixed Use Development Scenario and the No-Hotel Development Scenario would not include these types of land uses and is not considered to be a substantial source of DPM warranting a refined HRA since daily truck trips to the Project Site would not exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. In addition, the CARB-mandated ATCM limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than 5 minutes at any given time, which would further limit diesel particulate emissions.

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

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[78] *Proposed residential uses would be located approximately 560 feet from SR-110 and US-101 and would be consistent with the 500 feet recommended buffer distance by CARB and SCAQMD.*

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

result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed 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 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.

Off-Site Sources

As discussed above, the Project would not place sensitive uses near TAC sources within recommended buffer distances identified in the CARB and SCAQMD guidelines. In addition, a search was performed using the SCAQMD Facility Information Detail (FIND) database which contains public information about SCAQMD-regulated facilities required to have an air permit. A FIND search was conducted in the vicinity of the Project Site which indicated that no major permitted sources of TACs are located within 0.25 mile of the Project Site. Minor emissions sources such as boilers or emergency generators are located within the Project vicinity, but the CARB Land Use Handbook does not identify these as major sources of TACs.

As the Project would not place sensitive uses near substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, the Project would not result in the exposure of future on-site 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, and potential TAC impacts would be less than significant.

Based on the above, the Project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

(2) Mitigation Measures

Project-level impacts related to Threshold (c) would be less than significant during construction and operation of the Project. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to Threshold (c) during construction and operation of the Project would be less than significant without mitigation.

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 IV, Other CEQA Considerations, of this Draft EIR, and 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, impacts with respect to Threshold (d) would be less than significant. No further analysis is required.**

e. Cumulative Impacts

(1) Impacts Analysis

(a) Construction

With respect to the Project's construction-related air quality emissions and cumulative conditions within the Air Basin, the SCAQMD developed strategies (e.g., SCAQMD Rule 403) to reduce criteria pollutant emissions outlined in the AQMP pursuant to federal CAA mandates. The Project would comply with regulatory requirements, including the SCAQMD Rule 403 requirements listed above. Per SCAQMD rules and mandates as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, all construction projects within the Air Basin would comply with these same regulatory requirements (e.g., SCAQMD Rule 403 compliance) and would also implement all feasible mitigation measures when significant impacts are identified.

According to the SCAQMD, 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 and precursors for which the Air Basin is in non-attainment. As presented in Table IV.A-5 on page IV.A-52, construction-related daily maximum regional construction emissions (i.e., combined on- and off-site emissions) without mitigation would exceed the SCAQMD daily significance thresholds for NO_X, which is an ozone precursor, during the first year of construction, primarily as a result of grading/excavation and the installation of the mat foundation. With incorporation of Mitigation Measures AIR-MM-1 and AIR-MM-2, provided above in Subsection 3.c, maximum regional NO_X emissions would be reduced by 56 percent during the first year of construction, but emissions would remain above the significance thresholds. As discussed above, while Mitigation Measures AIR-MM-3 through AIR MM-6 would serve to reduce construction emissions, the measures are not readily quantifiable and were conservatively not included in the construction emissions inventory. **Consequently, the Project would result in a significant cumulative impact due to construction-related regional NO_X emissions.**

In terms of localized air quality impacts, Table IV.A-8 on page IV.A-59 shows that construction of the Project would have a less-than-significant cumulative impact as **impacts from NO_X, CO, PM_{10} and $PM_{2.5}$ emissions would be less than significant. Thus, construction of the Project would have less-than-significant impacts with regard to localized emissions as well. Therefore, the Project's contribution to localized cumulative air quality impacts also would not be cumulatively considerable and, thus, would be less than significant.**

As discussed above under Threshold (c), Project construction activities, including generation of TACs, would not expose sensitive receptors to substantial pollutant concentrations. **Therefore, the Project's contribution to cumulative impacts on TACs during construction would not be cumulatively considerable, and cumulative impacts would be less than significant.**

(b) Operation

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. As discussed above, the Project's operational air quality regional emissions, localized emissions and TACs would be less than significant. Therefore, the emissions of non-attainment pollutants and ozone precursors generated by Project operation would not be cumulatively considerable.

With respect to TAC emissions, neither the Project nor any of the 89 related projects identified (which are largely residential, retail/commercial, and office in nature), would represent a substantial source of TAC emissions, which are typically associated with large-scale industrial, manufacturing, and transportation hub facilities. However, the related projects could generate minimal TAC emissions related to the use of consumer products and landscape maintenance activities, among other things. Pursuant to AB 1807, which directs CARB to identify substances as TACs and adopt ATCMs to control such substances, SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial TAC emissions reductions throughout the Air Basin. As such, cumulative TAC emissions during long-term operations would be less than significant. In addition, the Project would not result in any substantial sources of TACs that have been identified by the CARB's Land Use Guidelines, and thus, would not contribute to a cumulative impact.

Accordingly, regional, localized, and TAC emissions during operation of the Project would not be cumulatively considerable.

In conclusion, during construction, the Project would have a cumulative impact to regional emissions (i.e., related to NO_X emissions); however, localized and TAC emissions during construction and operation as well as regional operation would not be cumulatively considerable.

(2) Mitigation Measures

(a) Construction

Mitigation Measures AIR-MM-1 through AIR-MM-6 provided above would be implemented to reduce regional air quality impacts during construction. In addition, the project design features previously identified above would also reduce construction impacts to the extent feasible.

(b) Operation

Cumulative impacts related to air quality would be less than significant during operation of the Project. Therefore, no mitigation measures are required for Project operations.

(3) Level of Significance After Mitigation

(a) Construction

Implementation of the project design features and mitigation measures described above would serve to reduce construction emissions for all pollutants. As discussed above, Mitigation Measure AIR-MM-1 would require use of Tier 4 final equipment to reduce NO_x emissions. Mitigation Measure AIR-MM-2 would require use of model year 2010 and newer trucks during demolition, excavation and concrete phases. However, with implementation of the mitigation measures and project design features mentioned above, peak daily regional NO_X emissions would exceed the SCAQMD regional significance thresholds. As such, Project construction would result in significant and unavoidable Project-level and cumulative regional impacts related to NOx emissions.

(b) Operation

Cumulative impacts related to air quality during operation of the Project 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.

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* (2018) 6 Cal. 5th 502 (*Friant Ranch*), the City prepared a guidance document (Air Quality and Health Effects (*Sierra Club v. County of Fresno*),[80] that provides a supplemental discussion on the potential for identifiable health impacts to result from air pollutants analyzed in City environmental documents prepared 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

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[80] *City of Los Angeles, Air Quality Health Effects (Sierra Club v. County of Fresno), October 2019. Included as Appendix D of this Draft EIR.*

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).[81] 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.[82] 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 six pounds per day over the SCAQMD's signficance threshold represent approximately 0.1 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 less than one-tenth 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

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[81] *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.*

[82] *SCAQMD, Final Program Environmental Assessment for Re-Adoption of Proposed Rule 1315, 2011 (p. 1-11), www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects/aqmd-projects---year-2011/re-adoption-of-proposed-rule-1315.*

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 D, the City's guidance document, for a discussion of general adverse health impacts resulting from NO_X.