

## **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 conflicts with implementation of the South Coast Air Quality Management District (SCAQMD)'s Air Quality Management Plan (AQMP) and the City of Los Angeles General Plan. The analysis of Project-generated air emissions focuses on whether the Project would 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. The analysis provided herein also addresses whether the Project would expose sensitive receptors to substantial pollutant concentrations. Calculation worksheets, assumptions, and model outputs used in the analysis are included in Appendix B of this Draft EIR.

#### **2. Environmental Setting**

##### **a. Air Quality Background**

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

Air pollutant emissions within the Air Basin are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural

fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect the public health and welfare. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, which have been adopted for them. The national and state standards have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. The national and state criteria pollutants and the applicable ambient air quality standards are listed in Table IV.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 in the chest and throat, thereby increasing susceptibility to respiratory infections and

**Table IV.A-1  
Ambient Air Quality Standards**

Pollutant	Averaging Period	California Standard <sup>a,b</sup>	Federal Standard <sup>a,b</sup>	SCAQMD Attainment Status <sup>c</sup>	
				California Standard <sup>d</sup>	Federal Standard <sup>d</sup>
Ozone (O <sub>3</sub> )	1 hour	0.09 ppm (180 µg/m <sup>3</sup> )	—	Non-Attainment	—
	8 hour	0.07 ppm (137 µg/m <sup>3</sup> )	0.070 ppm (137 µg/m <sup>3</sup> )	Non-Attainment	Non-Attainment (Extreme)
Respirable Particulate Matter (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Non-Attainment	Attainment
	Annual	20 µg/m <sup>3</sup>	—		
Fine Particulate Matter (PM <sub>2.5</sub> )	24 hour	—	35 µg/m <sup>3</sup>	Non-Attainment	Non-Attainment (Serious)
	Annual	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	1 hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	Attainment	Attainment
	8 hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )		
Nitrogen Dioxide (NO <sub>2</sub> )	1 hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.10 ppm (188 µg/m <sup>3</sup> )	Attainment	Unclassified/ Attainment
	Annual	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )		
Sulfur Dioxide (SO <sub>2</sub> )	1 hour	0.25 ppm (655 µg/m <sup>3</sup> )	0.075 ppm (196 µg/m <sup>3</sup> )	Attainment	Unclassified/ Attainment
	3 hour	—	0.5 ppm (1,300 µg/m <sup>3</sup> )		
	24 hour	0.04 ppm (105 µg/m <sup>3</sup> )	0.14 ppm (365 µg/m <sup>3</sup> )		
	Annual	—	0.03 ppm (80 µg/m <sup>3</sup> )		
Lead (Pb)	30-day average	1.5 µg/m <sup>3</sup>	—	Attainment	Partial Non- Attainment <sup>e</sup>
	Rolling 3-month average	—	0.15 µg/m <sup>3</sup>		
Sulfates	24 hour	25 µg/m <sup>3</sup>	—	Attainment	—
Hydrogen Sulfide (H <sub>2</sub> S)	1 hour	0.03 ppm (42 µg/m <sup>3</sup> )	—	Unclassified	—

*ppm = parts per million by volume*

*µg/m<sup>3</sup> = micrograms per cubic meter*

<sup>a</sup> *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 <sup>a,b</sup>	Federal Standard <sup>a,b</sup>	SCAQMD Attainment Status <sup>c</sup>	
				California Standard <sup>d</sup>	Federal Standard <sup>d</sup>
<i>expressed as a concentration that is not to be equaled or exceeded.</i>					
<sup>b</sup> <i>Ambient Air Quality Standards based on the 2016 AQMP.</i>					
<sup>c</sup> <i>“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.</i>					
<sup>d</sup> <i>California and Federal standard attainment status based on SCAQMD’s 2016 AQMP.</i>					
<sup>e</sup> <i>An attainment re-designation request is pending.</i>					
<i>Source: Eyestone Environmental, 2020.</i>					

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<sub>10</sub> and PM<sub>2.5</sub>)*

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<sub>10</sub>) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns (PM<sub>2.5</sub>), 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<sub>10</sub> and PM<sub>2.5</sub>. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

*(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<sub>2</sub>)*

NO<sub>2</sub> 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<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub> commonly called NO<sub>x</sub>. NO<sub>2</sub> absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO<sub>2</sub> also contributes to the formation of PM<sub>10</sub>. Nitrogen oxides irritate the nose and throat, and increase one's susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO<sub>x</sub> is as a precursor to the formation of O<sub>3</sub>.

*(e) Sulfur Dioxide (SO<sub>2</sub>)*

Major sources of SO<sub>2</sub> include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO<sub>2</sub> potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

*(f) Lead (Pb)*

Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

*(g) Sulfates (SO<sub>4</sub><sup>2-</sup>)*

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

*(h) Hydrogen Sulfide (H<sub>2</sub>S)*

H<sub>2</sub>S 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<sub>2</sub>S 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<sub>x</sub>) of the photochemical processes by which such criteria pollutants as ozone, nitrogen dioxide, and certain fine particles are formed. They are, thus, regulated as “precursors” to formation of those criteria pollutants.

**(3) Toxic Air Contaminants (TACs)**

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

The California Air Resources Board (CARB)<sup>1</sup> 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.<sup>2</sup>

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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<sup>1</sup> 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.*

<sup>2</sup> CARB, *Toxic Air Contaminant Identification List*, [ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants](http://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants), accessed March 11, 2020.

ultrafine particles (ultrafine particles have a diameter less than 0.1  $\mu\text{m}$ ). 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.<sup>3,4</sup>

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

## c. Regulatory Framework

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

### (1) Criteria Pollutants

#### (a) Federal

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

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<sup>3</sup> CARB, *Overview: Diesel Exhaust and Health*, [ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health](http://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health), accessed on March 11, 2020.

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

<sup>5</sup> SCAQMD, *MATES IV Final Report*, 2015.

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

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the National Ambient Air Quality Standard (NAAQS). These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. Table IV.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<sub>3</sub> and PM<sub>2.5</sub> and, therefore, is considered a federal “non-attainment” area for these pollutants. In addition, Los Angeles County fails to meet the national standard for lead and, therefore, is considered a federal “non-attainment” area for lead.

*(b) State*

*(i) California Clean Air Act*

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. Table IV.A-1 includes the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the state. As shown in Table IV.A-1, the CAAQS include more stringent standards than the NAAQS. The Air Basin fails to meet state standards for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and, therefore, is considered a state “non-attainment” area for these pollutants.

*(ii) California Code of Regulations*

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

(c) *Regional*

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

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

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

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operation. For example, SCAQMD Rule 403 (Fugitive Dust) requires the implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads.

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

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

- All materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of spillage or dust;
  - Suspend earthmoving operations or implement additional watering to meet Rule 403 criteria if wind gusts exceed 25 mph; and
  - The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by construction and hauling, and at all times provide reasonable control of dust caused by wind. All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions.
- SCAQMD Rule 1113 limits the VOC content of architectural coatings.
  - SCAQMD Rule 1403 requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.
  - SCAQMD Regulation XIII, New Source Review, requires new on-site facility nitrogen oxide emissions to be minimized through the use of emission control measures (e.g., use of best available control technology for new combustion sources such as boilers, emergency generators, and water heaters).

*(ii) Southern California Association of Governments (SCAG)*

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements, including applicable federal, state, and air district laws and regulations. As the federally designated Metropolitan Planning Organization (MPO) for the six-county Southern California region, SCAG is required by law to ensure that transportation activities “conform” to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. In addition, SCAG is a co-producer, with 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.

*(d) Local*

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions.

The City's General Plan was prepared in response to Government Code, Title 7, Division 1, Chapter 3, Article 5, Section 65302, requiring that each city and county adopt a long-term comprehensive general plan. This plan must be integrated and internally consistent, and must present goals, objectives, policies, and implementation guidelines for decision makers to use. The General Plan includes an Air Quality Element, which was adopted on November 24, 1992, that serves to aid the City in attaining the state and federal ambient air quality standards at the earliest feasible date, while still maintaining economic growth and improving the quality of life. The planning area for the Air Quality Element covers the entire City, which encompasses an area of about 465 square miles. The Air Quality Element and the accompanying Clean Air Program acknowledge the inter-relationships between transportation and land use planning in meeting the City's mobility and clean air goals. With the City's adoption of the Air Quality Element and the accompanying Clean Air Program, the City is seeking to achieve consistency with regional air quality growth management, mobility, and congestion management plans. The Air Quality Element sets forth the goals, objectives, and policies, which guide the City in the implementation of its air quality improvement programs and strategies.

The Air Quality Element establishes six goals. 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 SCAQMD’s *CEQA Air Quality Handbook* and SCAQMD’s supplemental online guidance/information for the environmental review of plans and development proposals within its jurisdiction.

## (2) Toxic Air Contaminants (TAC)

### (a) State

#### (i) Assembly Bill 1807

The California Air Toxics Program 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.<sup>6</sup> In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants (HAPs) as TACs.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of airborne toxic control measures (ATCMs), both for mobile and stationary sources. In 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In addition to limiting exhaust from idling trucks, CARB adopted regulations on July 26, 2007 for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled, off-road diesel vehicles to reduce emissions by installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size, with the largest operators beginning compliance in 2014.<sup>7</sup>

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.

## **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

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<sup>6</sup> CARB, *Identified Toxic Air Contaminants*, [ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants](http://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants), accessed March 11, 2020.

<sup>7</sup> CARB, *Construction & Earthmoving Equipment*, [ww2.arb.ca.gov/our-work/topics/construction-earthmoving-equipment](http://ww2.arb.ca.gov/our-work/topics/construction-earthmoving-equipment), accessed March 11, 2020.

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<sub>3</sub> 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<sub>3</sub> and PM<sub>2.5</sub>. In addition, Los Angeles County still fails to meet the national standard for lead.

SCAQMD has the responsibility for ensuring that all national and State ambient air quality standards are achieved and maintained throughout the Air Basin. To meet the standards, SCAQMD has adopted a series of AQMPs. The 2016 AQMP includes strategies to ensure that rapidly approaching attainment deadlines are met and that public health is protected to the maximum extent feasible. The most significant air quality challenge in the Air Basin is to reduce NO<sub>x</sub> emissions<sup>8</sup> sufficiently to meet the upcoming ozone standard deadlines. The 2016 AQMP provides a baseline year 2012 inventory of 512 tons per day (tpd) of NO<sub>x</sub> and modeling results show that NO<sub>x</sub> emissions are projected to be 214 tpd in the 8-hour ozone attainment year of 2031, due to continued implementation of already adopted regulatory actions ("baseline emissions"). The 2016 AQMP suggests that total Air Basin emissions of NO<sub>x</sub> must be reduced to 96 tpd in 2031 to attain the 8-hour ozone standard. Although the existing air regulations and programs will continue to lower NO<sub>x</sub> emissions in the region, an additional 55 percent in the year 2031 are necessary to attain the 8-hour ozone standard.<sup>9,10</sup>

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

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<sup>8</sup> NO<sub>x</sub> emissions are a precursor to the formation of both ozone and secondary PM<sub>2.5</sub>.

<sup>9</sup> 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).

<sup>10</sup> SCAQMD, Final 2016 AQMP, 2017, p. ES-2.

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. In addition, SCAG recently approved its 2016–2040 RTP/SCS<sup>11</sup> that include transportation programs, measures, and strategies generally designed to reduce VMT, which are contained in the AQMP.

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

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

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.<sup>12</sup>

SCAQMD has released the Multiple Air Toxics Exposure study (MATES-IV).<sup>13</sup> The MATES-IV Study was aimed at estimating the cancer risk from toxic air emissions throughout the Air Basin by conducting a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize health risks for those living in the Air Basin. The MATES-IV Study concluded that the average carcinogenic risk from air pollution in the Air Basin is approximately 420 in one million over a 70-year duration. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors. Approximately 68 percent of the risk is attributed to diesel particulate emissions, approximately 21 percent to other toxics associated with mobile sources (including benzene, butadiene, and carbonyls), and approximately 11 percent of all carcinogenic risk is attributed to stationary sources (which include large

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<sup>11</sup> SCAG, *Final 2016 RTP/SCS*.

<sup>12</sup> SCAQMD, *Final 2016 AQMP*, 2017, p. 1-6.

<sup>13</sup> SCAQMD, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV) Final Report*, May 2015.

industrial operations, such as refineries and metal processing facilities, as well as smaller businesses, such as gas stations and chrome plating).<sup>14</sup>

As part of the MATES-IV Study, SCAQMD prepared a series of maps that shows regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps' estimates represent the number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years) in parts of the area. The MATES-IV map is the most recently available map to represent existing conditions near the Project area. The estimated cancer risk for the vast majority of the urbanized area within the Air Basin ranges from 200 to over 1,200 cancers per million over a 70-year duration.<sup>15</sup> Generally, the risk from air toxics is lower near the coastline and higher risks are concentrated near large diesel sources (e.g., freeways, airports, and ports).

## (2) Local Air Quality

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

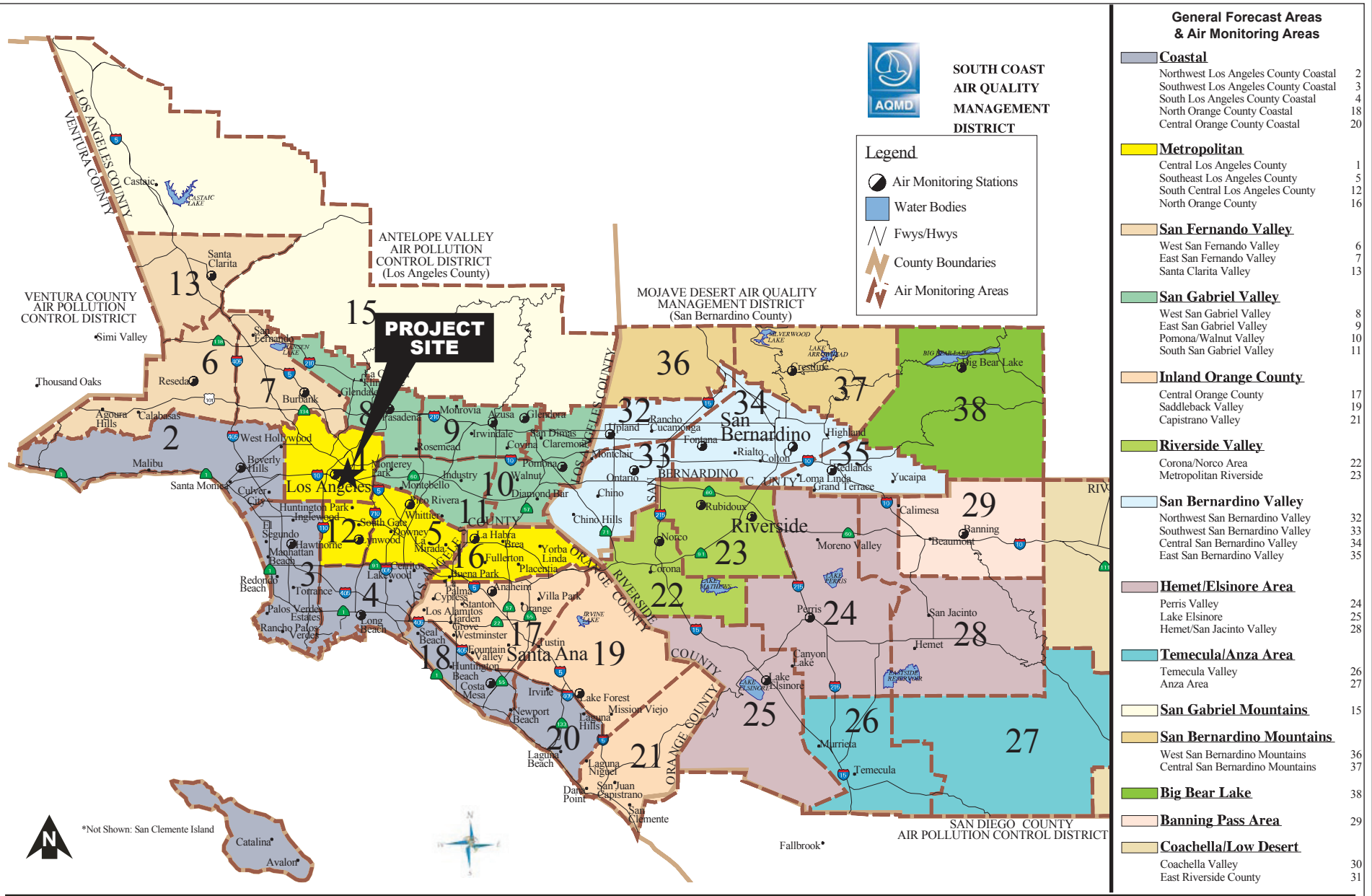
### *(a) Existing Pollutant Levels at Nearby Monitoring Stations*

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-1 on page IV.A-17 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 2.5 miles north of the Project Site. Criteria pollutants monitored at this station include PM<sub>10</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, CO, NO<sub>2</sub>, lead, and sulfate. Table IV.A-2 on page IV.A-18 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.

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<sup>14</sup> SCAQMD, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV) Final Report*, May 2015.

<sup>15</sup> SCAQMD, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV)*, *MATES IV Interactive Carcinogenicity Map*, 2015.



**Figure IV.A-1**  
SCAQMD SRAs

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

Pollutant	Year		
	2016	2017	2018
<b>Ozone (O<sub>3</sub>)</b>			
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
<b>Respirable Particulate Matter (PM<sub>10</sub>)</b>			
Maximum 24-hour Concentration (µg/m <sup>3</sup> )	67	96	81
Days exceeding NAAQS (150 µg/m <sup>3</sup> )	0	0	0
Days exceeding CAAQS (50 µg/m <sup>3</sup> )	18	41	31
Annual Arithmetic Mean (µg/m <sup>3</sup> )	32	34	34
Does measured AAM exceed CAAQS (20 µg/m <sup>3</sup> )?	Yes	Yes	Yes
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>			
Maximum 24-hour Concentration (µg/m <sup>3</sup> )	44	49	44
Days exceeding NAAQS (35 µg/m <sup>3</sup> )	2	5	3
Annual Arithmetic Mean (µg/m <sup>3</sup> )	12	12	13
Does measured AAM exceed NAAQS (12 µg/m <sup>3</sup> )?	No	No	Yes
Does measured AAM exceed CAAQS (12 µg/m <sup>3</sup> )?	No	No	Yes
<b>Carbon Monoxide (CO)</b>			
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
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>			
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
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>			
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**

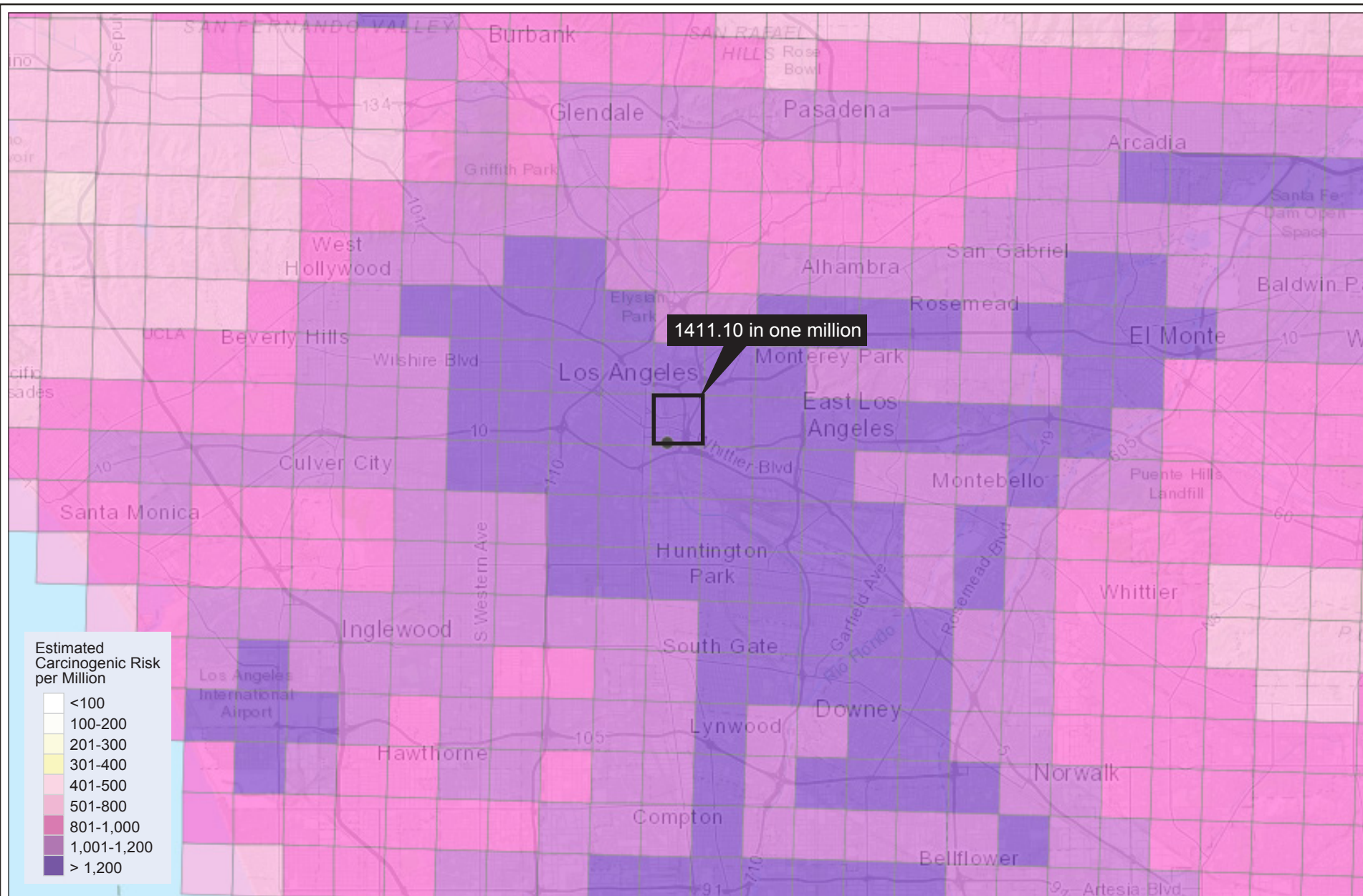
Pollutant	Year		
	2016	2017	2018
<b>Lead</b>			
Maximum 30-day Average Concentration ( $\mu\text{g}/\text{m}^3$ )	0.02	0.02	0.01
Does measured concentration exceed NAAQS ( $1.5 \mu\text{g}/\text{m}^3$ )	No	No	No
Maximum Calendar Quarter Concentration ( $\mu\text{g}/\text{m}^3$ )	0.01	0.01	0.01
Does measured concentration exceed CAAQS ( $1.5 \mu\text{g}/\text{m}^3$ )	No	No	No
<b>Sulfate</b>			
Maximum 24-hour Concentration ( $\mu\text{g}/\text{m}^3$ )	6	5	5
Does measured concentration exceed CAAQS ( $25 \mu\text{g}/\text{m}^3$ )	No	No	No
<p>_____</p> <p><i>AAM = annual arithmetic mean</i>  <i>ppm = parts per million by volume</i>  <i><math>\mu\text{g}/\text{m}^3</math> = micrograms per cubic meter</i>  <i>Source: South Coast Air Quality Management District Ambient Monitoring Data (2016–2018).</i></p>			

*(b) Existing Health Risk in the Surrounding Area*

As shown in Figure IV.A-2 on page IV.A-20, based on the MATES-IV model, the calculated cancer risk in the Project area is approximately 1,400 in one million.<sup>16</sup> The cancer risk in this area is predominately related to nearby sources of diesel particulate (e.g., US-101). In general, the risk at the Project Site is comparable with other urbanized areas in Los Angeles, which have a similar calculated cancer risk as the Project area.

Potential sources of TACs within the Project Site vicinity were identified using SCAQMD's Facility Information Database (FIND) search and site reconnaissance to identify potential non-permitted air toxic emitting sources (e.g., freeways, diesel trucks idling at warehouse distribution facilities in excess of 100 trucks per day). Based on the FIND search conducted, no major 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 no substantial permitted stationary sources (e.g., gasoline stations, dry cleaners, chrome plating operations) of TAC emissions within the Project Site vicinity (within 0.25 mile) were identified.

<sup>16</sup> SCAQMD, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV)*, MATES IV Interactive Carcinogenicity Map, 2015.



**Figure IV.A-2**  
MATES IV Total Cancer Risk for Project Area

*(c) Surrounding Uses*

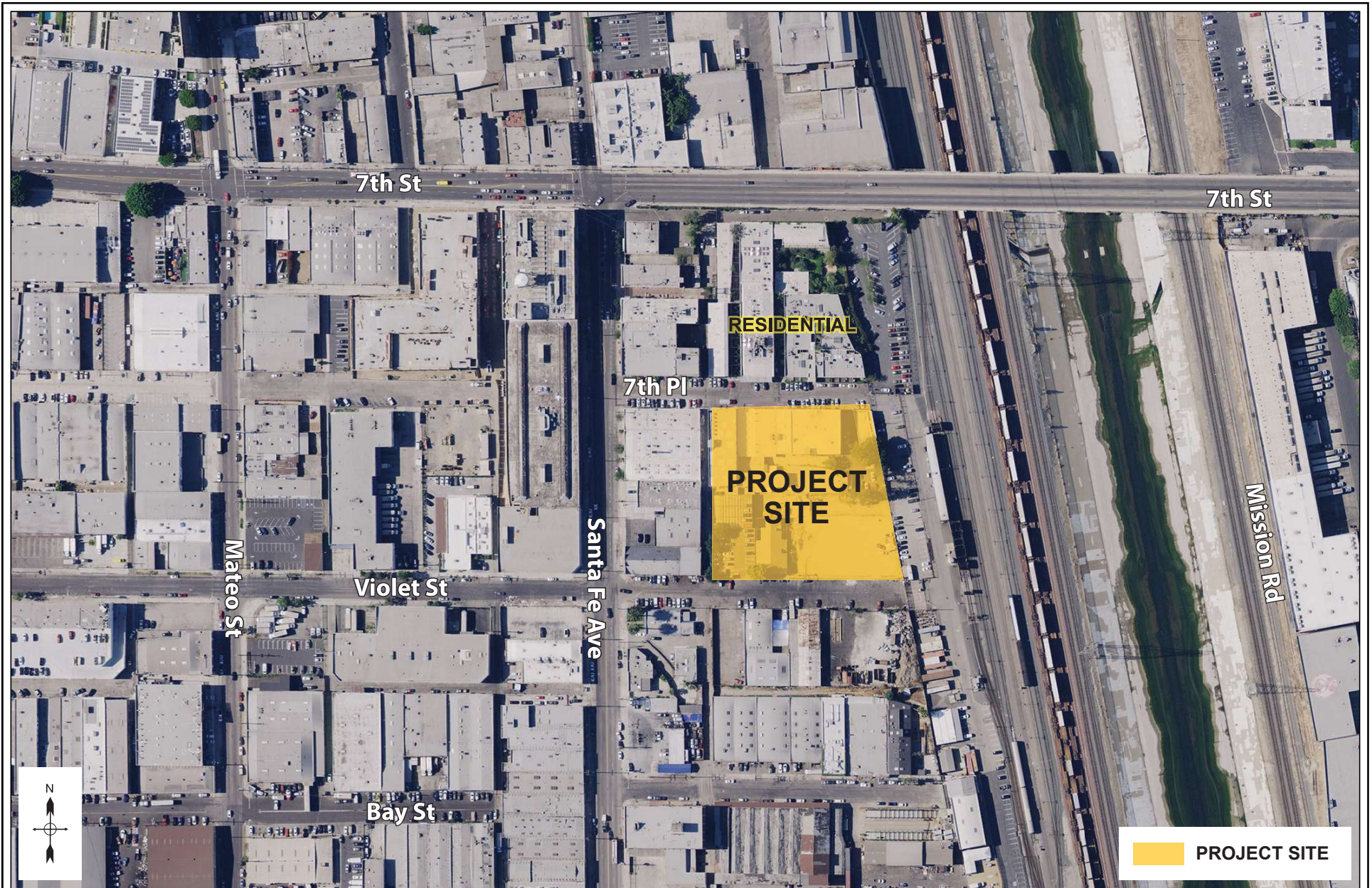
As shown in Figure IV.A-3 on page IV.A-22, the land uses surrounding the Project Site include a mix of light industrial, commercial, restaurant, and residential uses. Retail, restaurant, office, and residential uses are located north of the site. A grocery distribution facility is located to the south of the Project Site. To the west of the Project includes commercial, restaurant, and light industrial 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 Project vicinity include residential uses discussed above and are shown in Figure IV.A-3. All other air quality sensitive receptors are located at greater distances from the Project Site and would be less impacted by Project emissions. Therefore, Project's local (ambient) impacts are quantified only for the sensitive receptors depicted in Figure IV.A-3.

*(e) Existing Project Site Emissions*

The Project Site is currently developed with seven buildings containing 10 live-work units, 2,109 square feet of warehousing, 25,739 square feet of retail uses, and 6,983 square feet of office. Area source emissions are generated by maintenance equipment, landscape equipment, and use of products that contain solvents. Energy source emissions are typically associated with building natural gas usage. Mobile source emissions are generated by motor vehicle trips to and from the Project Site. Table IV.A-3 on page IV.A-23 presents an estimate of the existing emissions within the Project Site.



**Figure IV.A-3**  
Air Quality Sensitive Receptors Locations

**Table IV.A-3**  
**Estimated Daily Regional Operational Criteria Pollutant Emissions—Baseline<sup>a</sup>**

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	1	<1	1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	2	7	16	<1	2	<1
<b>Total Existing Emissions<sup>a</sup></b>	<b>3</b>	<b>7</b>	<b>17</b>	<b>&lt;1</b>	<b>2</b>	<b>&lt;1</b>
<p>Numbers may not add up exactly due to rounding.</p> <p><sup>a</sup> The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.</p> <p>Source: Eyestone Environmental, 2020.</p>						

### 3. Project Impacts

#### a. Thresholds of Significance

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

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

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

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

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

For this analysis, the Appendix G Thresholds listed above are relied upon. The analysis utilizes factors and considerations identified in the City's *L.A. CEQA Thresholds Guide*, as appropriate, to assist in answering the Appendix G Threshold questions.

The *L.A. CEQA Thresholds Guide* identifies the following factors to evaluate air quality impacts:

## (1) Construction

### *(a) Combustion Emissions from Construction Equipment*

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

### *(b) Fugitive Dust—Grading, Excavation and Hauling*

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

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

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

### *(d) Other Mobile Source Emissions*

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

## (2) Operation

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

Pollutant	Significance Threshold (lbs/day)
ROG	55
NO <sub>x</sub>	55
CO	550
PM <sub>10</sub>	150
SO <sub>x</sub>	150

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

### (3) Toxic Air Contaminants

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

- The regulatory framework for the toxic material(s) and process(es) involved;
- The proximity of the TACs to sensitive receptors;
- The quantity, volume and toxicity of the contaminants expected to be emitted;
- The likelihood and potential level of exposure; and
- The degree to which project design will reduce the risk of exposure.

### (4) SCAQMD's CEQA Air Quality Handbook

To assist in answering the Appendix G Threshold questions and factors identified in the City's *L.A. CEQA Thresholds Guide* for purposes of this analysis, the City of Los Angeles utilizes the thresholds of significance in 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-4 on page IV.A-26 shows SCAQMD's currently recommended

**Table IV.A-4  
SCAQMD Air Quality Significance Thresholds**

Mass Daily Thresholds <sup>a</sup>		
Pollutant	Construction <sup>b</sup>	Operation
NO <sub>x</sub>	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM <sub>10</sub>	150 lbs/day	150 lbs/day
PM <sub>2.5</sub>	55 lbs/day	55 lbs/day
SO <sub>x</sub>	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		
<b>TACs</b> (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)	
<b>Odor</b>	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
<b>GHG</b>	10,000 MT/yr CO <sub>2</sub> eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants		
<b>NO<sub>2</sub></b> 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)	
<b>PM<sub>10</sub></b> 24-hour average Annual Average	10.4 µg/m3 (construction) & 2.5 µg/m3 (operation) 1.0 µg/m3	
<b>PM<sub>2.5</sub></b> 24-hour average	10.4 µg/m3 (construction) & 2.5 µg/m3 (operation)	
<b>SO<sub>2</sub></b> 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal—99th percentile) 0.04 ppm (state)	
<b>Sulfate</b> 24-hour average	25 µg/m3 (state)	
<b>CO</b> 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)	
<b>Lead</b> 30-day average Rolling 3-month average	1.5 µg/m3 (state) 0.15 µg/m3 (federal)	
<hr/> <i>lbs/day = pounds per day</i>		
<sup>a</sup> SCAQMD CEQA Handbook, 1993, pages 6-2 and 6-3.		
<sup>b</sup> Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).		
Source: South Coast Air Quality Management District, 2019.		

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 SCAQMD's *CEQA Air Quality Handbook*,<sup>17</sup> 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-4 on page IV.A-26.
- 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<sup>3</sup>] over a 1-hour period or 9.0 ppm [10,350 µg/m<sup>3</sup>] averaged over an 8-hour period) and NO<sub>2</sub> (0.18 ppm [338.4 µg/m<sup>3</sup>] over a 1-hour period, 0.1 ppm [188 µg/m<sup>3</sup>] over a three-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm [56.4 µg/m<sup>3</sup>] averaged over an annual period).
- Maximum on-site localized PM<sub>10</sub> or PM<sub>2.5</sub> 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<sup>3</sup> or 1.0 µg/m<sup>3</sup> PM<sub>10</sub> averaged over an annual period.

*(b) Operation*

Based on the criteria set forth in SCAQMD's *CEQA Air Quality Handbook*,<sup>18</sup> 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 regional significance threshold levels identified in Table IV.A-4.
- 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

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<sup>17</sup> SCAQMD, *CEQA Air Quality Handbook*.

<sup>18</sup> SCAQMD, *CEQA Air Quality Handbook*.

1-hour period or 9.0 ppm averaged over an 8-hour period) and NO<sub>2</sub> (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).<sup>19</sup>

- Maximum on-site localized operational PM<sub>10</sub> and PM<sub>2.5</sub> emissions exceed the incremental 24-hr threshold of 2.5 µg/m<sup>3</sup> or 1.0 µg/m<sup>3</sup> PM<sub>10</sub> averaged over an annual period.<sup>20</sup>
- The Project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 ppm, respectively; or
- The Project creates an odor nuisance pursuant to SCAQMD Rule 402 (i.e., objectionable odor at the nearest sensitive receptor).

### (c) Toxic Air Contaminants

Based on the criteria set forth in SCAQMD's *CEQA Air Quality Handbook*, the Project would have a significant toxic air contaminant impact, if:<sup>21</sup>

- The Project emits carcinogenic or toxic air contaminants that exceed the maximum incremental chronic and acute cancer risk as provided in Table IV.A-4 on page IV.A-26.

In assessing impacts related to TACs in this section, the City will use Appendix G Threshold (c) as the threshold 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:<sup>22</sup>

- The Project results in the exposure of sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of ten in 1 million or an acute or chronic hazard index of 1.0.<sup>23</sup> For projects with a maximum

<sup>19</sup> SCAQMD, *LST Methodology*.

<sup>20</sup> SCAQMD, *Final-Methodology to Calculate Particulate Matter (PM) 2.5 and PM<sub>2.5</sub> Significance Thresholds*, October 2006.

<sup>21</sup> SCAQMD, *CEQA Air Quality Handbook*, Chapter 6 (Determining the Air Quality Significance of a project) and Chapter 10 (Assessing Toxic Air Pollutants), April 1993.

<sup>22</sup> SCAQMD, *CEQA Air Quality Handbook*, Chapter 6 (Determining the Air Quality Significance of a project) and Chapter 10 (Assessing Toxic Air Pollutants), April 1993.

<sup>23</sup> SCAQMD, *Air Quality Significance Thresholds*. March 2015.

incremental cancer risk between 1 in one million and ten in 1 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 SCAQMD's *CEQA Air Quality Handbook*,<sup>24</sup> the following criteria are used to evaluate the Project's consistency with SCAQMD's AQMP:

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

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<sup>24</sup> SCAQMD, *CEQA Air Quality Handbook*, Chapter 12, *Assessing Consistency with Applicable Regional Plans*, 1993.

is in non-attainment.<sup>25</sup> As discussed in SCAQMD's White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution (August 2003):

*As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR.... Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.*<sup>26</sup>

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 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, 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. SCAQMD is currently in

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<sup>25</sup> Wong, Jillian, SCAQMD CEQA Specialist, personal communication, August 8, 2016.

<sup>26</sup> South Coast Air Quality Management District, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, August 2003, Appendix D.

the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*.<sup>27</sup>

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](http://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<sub>2.5</sub> significance thresholds and calculation methodology; and (8) updated SCAQMD Air Quality Significance Thresholds. SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

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.<sup>28</sup> 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). 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.

## (1) Construction

### (a) Regional Emissions

The Project's "regional" emissions refer to emissions that will be evaluated based on regional significance thresholds established by 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

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<sup>27</sup> SCAQMD, *Air Quality Analysis Handbook*, [www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook), accessed March 11, 2020.

<sup>28</sup> SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005.

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<sup>29</sup> (OFFROAD) and Emission FACtor model<sup>30</sup> (EMFAC), which are emissions estimation models developed by CARB, and used to calculate emissions from construction activities, including off- and on-road vehicles, respectively. CalEEMod also relies upon known emissions data associated with certain activities or equipment (often referred to as “default” data, values or factors) that can be used if site-specific information is not available. CalEEMod contains default values to use in each specific local air district region. Appropriate statewide default values can be used, if regional default values are not defined. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Construction tasks were aggregated to reflect overlapping tasks and identify the reasonably expected maximum construction emissions occurring over the course of Project construction. To be conservative, this analysis evaluates the Project’s air quality impacts during construction based on reasonably expected maximum construction emissions even though such emissions would not occur throughout the entire construction phase. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix B of this Draft EIR.

#### *(b) Localized Emissions*

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to 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 SCAQMD’s significance thresholds, as described above.<sup>31</sup> SCAQMD provides LSTs applicable to the following criteria pollutants: NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>.<sup>32</sup> SCAQMD does not provide an LST for SO<sub>2</sub> since land use development projects typically

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<sup>29</sup> CARB, 2017 Off-road Diesel Emission Factors.

<sup>30</sup> CARB, EMFAC 2014.

<sup>31</sup> SCAQMD, LST Methodology Appendix C-Mass Rate LST Look-Up Table, October 2009.

<sup>32</sup> SCAQMD, LST Methodology, p. 1-4.

result in negligible construction and long-term operation emissions of this pollutant. 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<sub>3</sub> 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. 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.

## (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.

Criteria pollutants are emitted during the generation of electricity at fossil fuel power plants. When electricity is used in buildings, the electricity generation typically takes place at off-site power plants, the majority of which burn fossil fuels. Because power plants are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves and not individual buildings or electricity users. Additionally, criteria pollutant emissions from power plants are subject to local, State, and federal control measures, which can be considered to be the maximum feasible level of mitigation for stack emissions. CalEEMod, therefore, does not calculate criteria pollutant emissions from regional power plants associated with building electricity use. Similar to construction, SCAQMD's CalEEMod model was used to estimate Project emissions during operation. Mobile-source emissions were calculated using CalEEMod. However, CalEEMod default VMT was bypassed to account for the Project-related VMT provided using the Los Angeles Department of Transportation (LADOT) VMT Calculator. 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. CalEEMod calculates mobile-source emissions using the Project's VMT, trip generation, and emission factors based on EMFAC2014.<sup>33</sup> Area source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product usage (including paints) rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the California Energy Commission California Commercial End Use Survey data set, which provides energy demand by building type and climate zone. Emissions associated with use of emergency generators were calculated using CalEEMod, in which emission factors are based on Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel Engines) from EPA's AP-42: Compilation of Air Pollutant Emission Factors. The emissions are based on the horsepower rating of the diesel generator and the number of hours operated per year for testing purposes.

To determine if a significant air quality impact would occur, the net increase in regional operational emissions generated by the Project was compared against SCAQMD's significance thresholds.<sup>34</sup> To be conservative, this analysis evaluates the Project's air quality impacts during operations based on reasonably expected maximum operational emissions even though such emissions would not occur throughout the entire operational phase. Refer to Appendix B of this Draft EIR for additional information regarding methodology.

*(b) Localized Emissions*

*(i) On-Site Emissions*

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

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<sup>33</sup> CAPCOA, *California Emissions Estimator Model, Appendix A: Calculation Details for CalEEMod*, October 2017

<sup>34</sup> 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.).

*(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,<sup>35</sup> primarily when idling at intersections.<sup>36,37</sup> 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.<sup>38</sup> Currently, the CO standard in California is a maximum of 3.4 grams/mile for passenger cars (with provisions for certain cars to emit even less).<sup>39</sup> 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 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 SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan).<sup>40</sup> 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

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<sup>35</sup> USEPA, *Air Quality Criteria for Carbon Monoxide*. EPA 600/P-099/001F, 2000,.

<sup>36</sup> SCAQMD, *CEQA Air Quality Handbook*. Section 4.5, 1993.

<sup>37</sup> SCAQMD, *Air Quality Management Plan*, 2003.

<sup>38</sup> USEPA, *Timeline of Major Accomplishments in Transportation, Air Pollution, and Climate Change*, [www.epa.gov/transportation-air-pollution-and-climate-change/timeline-major-accomplishments-transportation-air](http://www.epa.gov/transportation-air-pollution-and-climate-change/timeline-major-accomplishments-transportation-air), accessed March 11, 2020.

<sup>39</sup> 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.

<sup>40</sup> SCAQMD, *Federal Attainment Plan for Carbon Monoxide*, 1992.

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.<sup>41</sup> 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.<sup>42,43</sup> As an initial screening step, if a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hot spot analysis. If a project would potentially result in a CO hotspot based on the initial screening, detailed modeling may be performed using California LINE Source Dispersion Model, version 4 (CALINE4), which is a model used to assess air quality impacts near transportation facilities (i.e., roadways, intersections, street canyons, and parking facilities).

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

Potential TAC impacts are initially evaluated by conducting a qualitative analysis consistent with the CARB Handbook and SCAQMD guidance, both of which are discussed in detail below. 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.

#### (a) *Air Quality and Land Use Handbook*

CARB published the *Air Quality and Land Use Handbook* (CARB Handbook) on April 28, 2005 to serve as a general guide for considering health effects associated with siting sensitive receptors proximate to sources of TAC emissions.<sup>44</sup> The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either

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<sup>41</sup> Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

<sup>42</sup> 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.

<sup>43</sup> Metro, *Congestion Management Program for Los Angeles County. Exhibit 2-6 and Appendix A, 2004.*

<sup>44</sup> CARB, *Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.*

land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day;<sup>45</sup> (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

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

*(b) Regional*

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.<sup>46</sup> 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). 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

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<sup>45</sup> In November 2012, the Los Angeles City Planning Commission (CPC) issued an advisory notice (Zoning Information [ZI] File No. 2427) regarding the siting of sensitive land uses within 1,000 feet of freeways. The CPC deemed 1,000 feet to be a conservative distance to evaluate projects that house populations considered to be more at-risk from the negative effects of air pollution caused by freeway proximity. The CPC advised that applicants of projects requiring discretionary approval, located within 1,000 feet of a freeway and contemplating residential units and other sensitive uses (e.g., hospitals, schools, retirement homes, etc.) perform a Health Risk Assessment (HRA). In September 2018, ZI No. 2427 was updated and no longer recommends performing an HRA.

<sup>46</sup> SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005.

SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities. Significant risk facilities are those facilities which have an increased cancer risk exceeding 10 in 1 million or a total hazard index exceeding 1.0. Examples include landfills, paint booths, refineries and oil production facilities, among others.

### **c. Project Design Features**

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

### **d. Analysis of Project Impacts**

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

#### **(1) Impact Analysis**

##### ***(a) SCAQMD CEQA Air Quality Handbook Policy Analysis***

The following analysis addresses the Project's consistency with applicable SCAQMD and SCAG policies, inclusive of regulatory compliance. In accordance with the procedures established in 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:

- Would the project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations; or
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- Would the project exceed the assumptions utilized in preparing the AQMP?

- Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
- Does the Project include air quality mitigation measures; or
- To what extent is Project development consistent with the AQMP control measures?

*(i) Criterion 1*

With respect to the first criterion, as discussed under the analysis for **Threshold (c)**, below, localized concentrations of NO<sub>2</sub> as NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> have been analyzed for the Project. SO<sub>2</sub> emissions would be negligible during construction and long-term operations and, therefore, would not have the potential to cause or affect a violation of the SO<sub>2</sub> ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. Due to the role VOCs play in O<sub>3</sub> formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

As shown in Table IV.A-5 on page IV.A-49 in the analysis below, the increases in PM<sub>10</sub> and PM<sub>2.5</sub> emissions during construction would not exceed the SCAQMD-recommended significance thresholds at sensitive receptors in proximity to the Project Site. Additionally, the Project's maximum potential NO<sub>x</sub> and CO daily emissions during construction were analyzed to ascertain potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or affect a violation of an applicable ambient air quality standard. As shown in Table IV.A-7 on page IV.A-53 in the analysis below, and detailed in Appendix B (CalEEMod Construction Output file) of this Draft EIR, **NO<sub>x</sub> and CO would not exceed the SCAQMD-recommended localized significance thresholds. Therefore, Project construction would not result in a significant impact with regard to localized air quality.**

Because the Project would not introduce any substantial stationary sources of emissions (e.g., gasoline stations, dry cleaners, chrome plating operations), CO is the preferred benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations.<sup>47</sup> As indicated below, under the analysis for **Threshold (c)**, 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.**

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<sup>47</sup> SCAQMD, *CEQA Air Quality Handbook*, Chapter 12, *Assessing Consistency with Applicable Regional Plans*, 1993.

An analysis of potential localized operational impacts from on-site activities was also conducted. As shown in Table IV.A-8 on page IV.A-55 in the analysis below, localized NO<sub>2</sub> as NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> operational impacts would be less than significant. **Therefore, the Project would not increase the frequency or severity of an existing violation or cause or contribute to new violations for these pollutants and would also not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP.**

*(ii) Criterion 2*

With respect to the second criterion for determining consistency with AQMP growth assumptions, 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 of Los Angeles General Plan and SCAG's 2016–2040 RTP/SCS.

As described in Section IV.F, Land Use, of this Draft EIR, the General Plan of the City of Los Angeles serves as a comprehensive, long-term plan for future development of the City. Refer to the analysis below for a discussion of the Project's consistency with applicable goals, objectives, and policies of the City's General Plan Air Quality Element.

The 2016–2040 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. Economic assumptions, including employment rates and migration due to jobs, are also included as part of the 2016–2040 RTP/SCS forecast projections. According to the 2016–2040 RTP/SCS, the forecasted population for the City of Los Angeles Subregion in 2018 is

approximately 4,009,193 persons.<sup>48</sup> In 2024, the projected year of full Project occupancy, the City of Los Angeles Subregion is anticipated to have a population of approximately 4,172,886 persons.<sup>49</sup> Based on a household size factor of 2.42 persons per household, the Project is estimated to generate a residential population of 840 persons at full buildout.<sup>50</sup> The estimated new residents generated by the Project would represent approximately 0.51 percent of the population growth forecasted by SCAG in the City of Los Angeles Subregion between 2018 and 2024.<sup>51</sup> Based on employee generation factors provided by the Los Angeles Unified School District, development of the Project would result in approximately 961 employment positions on the Project Site.<sup>52</sup> According to the 2016–2040 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2018 is approximately 1,797,693 employees.<sup>53</sup> In 2024, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 1,898,986 employees.<sup>54</sup> Thus, the Project's estimated 961 employees would constitute approximately 0.95 percent of the employment growth forecasted between 2018 and 2024.<sup>55</sup> **As similar population and employment projections form the basis of the 2016 AQMP, the Project would be consistent with the projections in the AQMP.** Refer to Section IV.F, Land Use, of this Draft EIR, for additional information regarding potential conflicts with the 2016–2040 RTP/SCS.

The Project Site is located in the Arts District area, which is undergoing rapid transformation with many mixed-use infill projects replacing industrial and warehousing uses. It is anticipated that the development of these mixed-use projects will increase population and housing within the Arts District area. Specifically, the Project is located within the Central City North Community Plan area, which encourages mixed-use

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<sup>48</sup> Based on a linear interpolation of 2012–2040 data.

<sup>49</sup> Based on a linear interpolation of 2012–2040 data.

<sup>50</sup> Based on a rate of 2.42 persons per multi-family unit based on the 2017 American Community Survey 5-Year Average Estimates per correspondence with Jack Tsao, Data Analyst II, Los Angeles Department of City Planning, July 31, 2019.

<sup>51</sup>  $840 \div 163,693 = 0.51$  percent

<sup>52</sup> LAUSD, *Developer Fee Justification Study*, March 2018, Table 14. Based on 0.00479 employee per square foot for Standard Commercial Office and 0.00271 employee per square foot for Neighborhood Shopping Centers, the Project's 187,374 square feet of office uses, 21,858 square feet of retail restaurant uses, and 926 square feet of artist production space would result in 961 employees  $((187,374 * 0.00479) + (21,858 * 0.00271) + (926 * 0.00479) = 961)$ . The LAUSD Developer Fee Justification Study does not include an employee generation rate for artist production space. To provide a conservative estimate, the highest generation rate (i.e., Standard Commercial Office) was used.

<sup>53</sup> Based on a linear interpolation of 2012–2040 data.

<sup>54</sup> Based on a linear interpolation of 2012–2040 data.

<sup>55</sup>  $961 \div 101,293 = 0.95$  percent

developments along commercial corridors in the area.<sup>56</sup> 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 Community Plan. While the Project would require a General Plan Amendment, Specific Plan, and Vesting Zone Change, 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.

- 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 SCAQMD, as summarized above. 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 GHG emissions, they would also serve to reduce the criteria air pollutants discussed herein. Furthermore, with compliance with the regulatory requirements identified above and in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, no significant air quality impacts would occur. Therefore, the Project is not required to implement air quality mitigation measures. **As such, the Project meets this AQMP consistency criterion.**

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

With regard to land use developments, such as the Project, the 2016–2040 RTP/SCS land use control measures (i.e., goals and policies) focus on locating future growth within HQTAs and the reduction of vehicle trips and VMT.

As discussed in detail in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the 2016–2040 RTP/SCS includes, for the SCAG region as a whole, a daily 22.8 Total VMT per capita for the 2012 Base Year, and a daily 20.5 Total VMT per capita for the 2040 Plan Year. For Los Angeles County, the 2012 Base Year projected daily Total VMT per capita is 21.5 and 18.4 daily Total VMT per capita for the 2040 Plan Year. To analyze the Project's consistency with this aspect of the 2016–2040 RTP/SCS, the Project's Total Daily VMT was divided by the Project's service population to arrive at the Daily VMT per capita. As shown in Table IV.E-7 in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project VMT per capita of 7.7 VMT per day for residents and 7.5 VMT per day for employees would be well below the Los Angeles County goals provided in the 2016–2040 RTP/SCS.

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<sup>56</sup> Goal 1, Objective 1-2.1 of the Central City North Community Plan.

The Project represents an infill development within an existing urbanized area that would concentrate new residential, retail and office uses within a high-quality transit area (HQTA).<sup>57</sup> Therefore, the Project would be consistent with SCAG's 2016–2040 RTP/SCS as it is located within an HQTA. The Project would be designed and constructed with sustainability and transit orientation as guiding principles. Future rail transit service in the area would also include the West Santa Ana Branch corridor, which is currently being studied by Metro, including potential alignments along Alameda Street with potential station locations in the Arts District. Metro is also considering the potential extension of the Red and Purple Lines' revenue service to the east and south from Union Station to the Arts District, with potential stations at 3rd Street and 6th Street. The Project Site is also located approximately 1.5 miles from the Metro Gold Line Little Tokyo/Arts District Station. In addition, three Metro Local bus routes run within 0.25 mile of the Project Site, including Local Routes 18, 60 and 62. The Project would also provide required short- and long-term bicycle parking spaces in compliance with the requirements of the Los Angeles Municipal Code (LAMC). As further discussed 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 CalEEMod.<sup>58</sup> While these Project characteristics primarily reduce GHG 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-

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<sup>57</sup> Defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-served transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.

<sup>58</sup> "Standard Project" refers to a Project that would be developed under statewide average conditions (assumed analogous to an ITE baseline). Consistent with statewide average conditions, this assumes that a development would not be located in an urban setting in close proximity to job centers or major transit stations.

Use Development (MXD) model to calculate trip reductions for multi-use developments.<sup>59</sup> The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. As shown in Appendix B, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 23-percent reduction in overall VMT and resultant pollutant emissions compared to the baseline ITE trip generation rates. Furthermore, with implementation of Mitigation Measure TR-MM-1, implementation of a TDM program, the Project would result in a 28-percent reduction in overall VMT and associated emissions. As discussed above, using the LADOT VMT calculator, the Project daily per capita VMT is 7.7 miles for residents, which represents a reduction of 66 percent in daily per capita VMT when compared to the SCAG regional baseline of 22.8 daily per capita VMT. Project employee daily per capita VMT is 7.5 miles, which is a 67-percent reduction in comparison to SCAG baseline. This reduction in VMT is substantially better than the goals of the 2016–2040 RTP/SCS with an estimated 18-percent decrease in per capita GHG emissions from passenger vehicles by 2035 and 21-percent decrease in per capita GHG emissions from passenger vehicles by 2040.<sup>60</sup> Implementation of these sustainability features would contribute to a reduction in air quality emissions via a reduction in VMT. **Accordingly, as the Project would support SCAG's and SCAQMD's objectives of reducing VMT and the related vehicular air emissions, the Project is consistent with the control measures of the AQMP.**

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of the Project on air quality in the Air Basin. The Project represents an infill development near transit within an existing urbanized area that would concentrate new residential, retail, and office uses within an HQT, thus reducing VMT. The Project would not have a significant long-term impact on the region's ability to meet State and federal air quality standards. The Project would comply with SCAQMD Rule 403 and would implement measures for control of NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The Project would also be consistent with the goals and policies of the AQMP for the control of fugitive dust. As discussed above, the Project would be consistent with the goals and policies of the AQMP.

#### *(b) City of Los Angeles Policies*

As discussed above, the Air Quality Element of the City's General Plan was adopted on November 24, 1992, and sets forth the goals, objectives, and policies, which guide the

<sup>59</sup> Environmental Protection Agency, *Mixed-Use Trip Generation Model*. [www.epa.gov/smartgrowth/mixed-use-trip-generation-model](http://www.epa.gov/smartgrowth/mixed-use-trip-generation-model), accessed on May 4, 2020.

<sup>60</sup> CARB updated the SB 375 targets for the SCAG region, requiring a 19-percent decrease in VMT by 2035. Implementation of the 2016 RTP/SCS or the next plan is expected to fulfill and exceed the region's obligations under SB 375 with respect to meeting the State's VMT and related GHG emission reduction goals.

City in the implementation of its air quality improvement programs and strategies. The Air Quality Element acknowledges the interrelationships among transportation and land use planning in meeting the City's mobility and air quality goals.

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 City of Los Angeles General Plan Air Quality Element goals, objectives and policies discussed above in the regulatory framework. Specifically, the Project includes 257 bicycle parking spaces, consisting of 47 short-term spaces and 210 long-term spaces. The Project would provide opportunities for the use of alternative modes of transportation, including convenient access to public transit and opportunities for walking and biking to nearby destinations, such as the ROW DTLA and additional destinations including retail and restaurant uses in the northern part of the Arts District, thereby facilitating a reduction in VMT. In addition, the Project would be consistent with the developing land use pattern in the vicinity (i.e., Arts District) that features greater concentration of 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 within 0.5 mile of major transit stops. Additionally, as discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project would comply with the City's EV charging requirements which specifies that 10 percent of new parking spaces would require EV charging equipment. In addition, 30 percent of all new parking spaces would be required to be EV "ready" and capable of supporting future EV charging equipment.<sup>61</sup> Provisions of the EVSE and EV parking spaces would help to facilitate and encourage use of alternative fueled vehicles.

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

### *(c) Conclusion*

In conclusion, analysis of Threshold (a) was based on the Project's consistency with the AQMP, as well as the City of Los Angeles plans and policies. The determination of AQMP consistency is primarily concerned with the long-term influence of the Project on air quality in the Air Basin. As discussed above, the Project would not increase the frequency or severity of an existing air quality violation or cause or contribute to new violations for these pollutants. As the Project would not exceed any of the State and federal standards, the Project would also not delay the timely attainment of air quality standards or interim

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<sup>61</sup> *City of Los Angeles Ordinance No. 186485. December 11, 2019.*

emission reductions specified in the AQMP. In addition, because the Project is consistent with growth projections that form the basis of the 2016 AQMP, the Project would be consistent with the emissions forecasts in the AQMP. Furthermore, while the Project does not implement any air quality mitigation measures, the Project would comply with all applicable regulatory standards and would incorporate the project design features identified in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, that would serve to reduce the criteria air pollutants discussed herein. Additionally, as the Project would support the City of Los Angeles and SCAQMD's objectives of reducing VMT and the related vehicular air emissions, the Project would be consistent with AQMP control measures. **Thus, the Project would not conflict with or obstruct implementation of the AQMP. With regard to City policies, as discussed above, the Project would serve to implement applicable policies of the City pertaining to air quality. Based on the above, impacts to Threshold (a) would be less than significant.**

## (2) Mitigation Measures

Project impacts with regard to implementation of the AQMP would be less than significant during construction and over the long-term operating life of the Project. Therefore, no mitigation measures are required.

## (3) Level of Significance After Mitigation

Project impacts with regard to implementation of the AQMP during both construction and operation 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) Impact Analysis

### (a) Regional Emissions

#### (i) Construction

Project construction would occur in sequential phases (e.g., demolition, then grading, then building construction), with buildout expected to be completed in 2024. Construction of the Project would commence with demolition of two of the existing industrial structures and open sheds. This phase would be followed by grading and excavation for the subterranean parking garage. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. Approximately 239,500 cubic yards of export material (e.g., concrete and asphalt surfaces) and soil would be hauled from the Project Site during excavation.

Construction of the Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from haul trucks and construction workers traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and construction activities. Mobile source emissions, primarily NO<sub>x</sub>, 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 B (CalEEMod Construction Output file).

The emissions levels in Table IV.A-5 on page IV.A-49 represent the highest daily emissions projected to occur during each year of construction. As presented in Table IV.A-5, construction-related daily maximum regional construction emissions (i.e., combined on-site and off-site emissions) without mitigation would not exceed the SCAQMD daily significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

**Therefore, regional construction emissions resulting from the Project would result in a less-than-significant impact.**

*(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 Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. While these features are designed primarily to reduce GHG emissions relative to a standard 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. In addition, as provided in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project includes Project Design Feature GHG-PDF-1, which requires incorporating a variety of sustainability features, including energy-efficient design methods and technologies such as a centralized chiller plant with rooftop ventilation, high performance window glazing, passive design and façade shading devices, high efficiency domestic water heaters, and enhanced insulation to minimize solar heat gain.

**Table IV.A-5**  
**Estimate of Maximum Regional Project Daily Construction Emissions (pounds per day)<sup>a</sup>**

Construction Year	VOC <sup>b</sup>	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Regional Construction Emissions</b>						
Year 2021	9	90	75	<1	11	6
Year 2022	6	49	53	<1	9	3
Year 2023	49	50	65	<1	11	4
Year 2024	49	48	63	<1	10	4
<b>Maximum Unmitigated Construction Emissions<sup>c</sup></b>	<b>49</b>	<b>90</b>	<b>75</b>	<b>&lt;1</b>	<b>11</b>	<b>6</b>
<b>SCAQMD Daily Significance Thresholds</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Over/(Under)</b>	<b>(26)</b>	<b>(10)</b>	<b>(475)</b>	<b>(150)</b>	<b>(139)</b>	<b>(49)</b>
<b>Maximum Unmitigated Construction Emissions Exceed Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<p><i>Numbers may not add up exactly due to rounding.</i></p> <p><sup>a</sup> The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this document.</p> <p><sup>b</sup> 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.</p> <p><sup>c</sup> Unmitigated scenario assumes compliance with SCAQMD Rule 403 requirements for fugitive dust. Dust control measures include watering three times daily and properly securing soil exporting loads prior to transport.</p> <p>Source: Eyestone Environmental, 2020.</p>						

Table IV.A-6 on page IV.A-50 provides Project operational emissions. As discussed in Section II, Project Description, two buildings that comprise approximately 6,844 square feet and four live-work units, as well as two open sheds and surface parking spaces, would be removed while the remaining existing uses would be reconfigured. As a conservative assumption, the existing uses to be reconfigured and associated operational emissions were accounted for as part of the Project. Existing credit was not taken for the four live-work units removed with the Project. As shown in Table IV.A-6, regional emissions resulting from operation of the Project would not exceed any of SCAQMD's daily regional operational thresholds.

**Therefore, regional operational emissions resulting from the Project would result in a less-than-significant impact.**

**Table IV.A-6**  
**Estimate of Maximum Regional Project Daily Operational Emissions—At Project Buildout (2024)<sup>a</sup>**

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Project</b>						
Area	13	6	31	<1	1	1
Energy (Natural Gas)	<1	3	2	<1	<1	<1
Mobile <sup>b</sup>	7	31	85	<1	29	8
Stationary	<1	<1	<1	<1	<1	<1
<b>Total Proposed Uses Emissions</b>	20	39	118	<1	30	9
<b>SCAQMD Significance Threshold</b>	55	55	550	150	150	55
<b>Over/(Under)</b>	<b>(35)</b>	<b>(16)</b>	<b>(423)</b>	<b>(150)</b>	<b>(120)</b>	<b>(46)</b>
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<p>Numbers may not add up exactly due to rounding.</p> <p><sup>a</sup> The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.</p> <p><sup>b</sup> With implementation of Mitigation Measure TR-MM-1 (TDM Program), operational emissions would be reduced by an additional one lb/day of VOC, two lbs/day of NO<sub>x</sub>, six lbs/day of CO, two lbs/day of PM<sub>10</sub>, and one lb/day of PM<sub>2.5</sub>.</p> <p>Source: Eyestone Environmental, 2020.</p>						

*(b) Localized Emissions*

As previously discussed, 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) below, Project-related construction emissions would not exceed localized thresholds. **Therefore, localized construction emissions resulting from the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Localized construction emissions resulting from the Project would result in a less-than-significant air quality impact.**

*(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-site and off-site sources would not exceed localized thresholds. **Therefore, localized operational emissions resulting from the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Localized operational emissions resulting from the Project would result in a less-than-significant air quality impact.**

*(c) Conclusion*

According to SCAQMD guidance, individual projects that exceed 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 and Table IV.A-6 on pages IV.A-49 and IV.A-50, respectively, Project construction and operational daily emissions at the Project Site would not exceed any of SCAQMD's regional thresholds, respectively. Therefore, the Project's contribution to cumulative construction-related and operation-related regional emissions would not be cumulatively considerable and, therefore, would be less than significant. In addition, construction and operational emissions from the Project would not exceed any of SCAQMD's localized significance thresholds at Project buildout, as shown in Table IV.A-7 and Table IV.A-8 on pages IV.A-53 and IV.A-55, respectively, below. Thus, construction and operation 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.**

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

## (2) Mitigation Measures

Project impacts with respect to criteria air pollutants would not be cumulatively considerable. Therefore, no mitigation measures are required.

## (3) Level of Significance After Mitigation

Project impacts with respect to criteria air pollutants would not be cumulatively considerable without mitigation.

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**Threshold (c): Would the Project expose sensitive receptors to substantial pollutant concentrations?****(1) Impact 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 SCAQMD. Look-up tables provided by SCAQMD were used to determine localized construction emissions thresholds for the Project.<sup>62</sup> LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are based on the most recent background ambient air quality monitoring data (2016–2018) for the Project area presented in Table IV.A-2 on page IV.A-18. 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., 2021–2024). By doing so, the allowable exceedance of an ambient air quality standard is more stringent, thus making this analysis more conservative. The analysis is based on existing background ambient air quality monitoring data (2016–2018).

Maximum on-site daily construction emissions for NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> were calculated using CalEEMod and compared to the applicable SCAQMD LSTs for SRA 1 based on a 2.2-acre site. Potential impacts were evaluated at the closest off-site sensitive receptor, which are residential uses located to the south, approximately 20 meters from the Project Site. Ambient air quality standards for NO<sub>x</sub> and CO have averaging times of 1-hour and 8-hour 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.<sup>63</sup>

The maximum daily localized emissions from Project construction and LSTs are presented in Table IV.A-7 on page IV.A-53. As presented in Table IV.A-7, maximum

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<sup>62</sup> SCAQMD, *LST Methodology Appendix C-Mass Rate LST Look-up Table*, revised October 2009.

<sup>63</sup> SCAQMD, *Final Localized Significance Threshold Methodology*, revised July 2008.

**Table IV.A-7**  
**Estimate of Maximum Localized Daily Project Construction Emissions—Unmitigated**  
**(pounds per day)<sup>a, b</sup>**

Construction Year	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Year 2021	51	45	7	4.7
Year 2022	30	32	1	1
Year 2023	34	42	1	1
Year 2024	32	41	1	1
<b>Maximum Unmitigated Daily Localized Emissions</b>	51	45	7	4.7
<b>SCAQMD Localized Significance Thresholds<sup>c</sup></b>	<b>65</b>	<b>1,102</b>	<b>9</b>	<b>5.2</b>
<b>Over/(Under)</b>	<b>(14)</b>	<b>(1,057)</b>	<b>(2)</b>	<b>(0.5)</b>
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Numbers may not add up exactly due to rounding.

<sup>a</sup> The CalEEMod model printout sheets and calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.

<sup>b</sup> 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.

<sup>c</sup> 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 NO<sub>x</sub> 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.

construction emissions would not exceed the SCAQMD localized screening thresholds; therefore, 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.

The highest average daily trips at an intersection under the Existing Condition would be approximately 36,300 vehicles per day at the 7th Street and South Alameda Street intersection.<sup>64</sup> Project construction would result in a maximum of 1,044 passenger car

<sup>64</sup> Assumes that maximum hour intersection volumes represent 10 percent of the daily volumes.

equivalent (PCE) trips per day, which includes employee, delivery, and haul truck trips during building construction.<sup>65</sup>

Conservatively assuming that all of the Project construction would drive through this intersection, it would result in approximately 37,344 vehicles per day, which is significantly below the daily traffic volumes of 400,000 vehicles per day that would be expected to generate CO exceedances as evaluated in the 2003 AQMP. This daily trip estimate is based on the peak hour conditions of the intersection. **The Project off-site construction activities, including the highest average daily trips, would not expose sensitive receptors to substantial CO concentrations. As a result, impacts related to localized construction mobile-source CO emissions are considered less than significant.**

*(iii) Off-Site Construction Activities (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, SCAQMD's 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. 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-8 on page IV.A-55. The SCAQMD LST mass rate look-up tables were used to evaluate potential localized impacts. As shown in Table IV.A-8, on-site operational emissions would not exceed any of the LSTs. **The Project on-site**

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<sup>65</sup> *Fehr and Peers Transportation Impact Study for the 2143 Violet Street, City of Los Angeles, October 2018.*

**Table IV.A-8**  
**Estimate of Maximum Localized Project Daily Operational Emissions—At Project Buildout**  
**(2024)<sup>a</sup>**  
**(pounds per day)**

Emission Source	Pollutant Emissions (pounds per day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	6	31	0.6	0.6
Energy (Natural Gas)	3	2	0.2	0.2
Stationary	<1	<1	<0.1	<0.1
<b>On-Site Total</b>	9	33	0.8	0.8
<b>SCAQMD Significance Threshold<sup>b,c</sup></b>	65	1,102	2.1	2.0
<b>Over/(Under)</b>	(56)	(1,069)	(1.3)	(1.2)
<b>Exceed Threshold?</b>	No	No	No	No

Numbers may not add up exactly due to rounding.

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

<sup>b</sup> 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 NO<sub>x</sub> 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.

<sup>c</sup> 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<sub>2</sub> since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant.

Source: Eyestone Environmental, 2020.

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, the highest average daily trips at an intersection would be approximately 60,000 vehicles per day at the 7th Street and Alameda Street,<sup>66</sup> which is

<sup>66</sup> Assumes that peak hour intersection volumes represent 10 percent of the daily volumes.

below the daily traffic volumes of 400,000 vehicles per day that would be expected to generate CO exceedances as evaluated in the 2003 AQMP.<sup>67</sup> 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 7th Street and Alameda Street intersection would exceed the 1-hour CO standard if modeled in detail, based on the studies undertaken for the 2003 AQMP. In addition, CO background concentrations within the vicinity of the modeled intersection have substantially decreased since preparation of the 2003 AQMP primarily due to ongoing fleet turn over of older on-road light duty vehicles and cleaner fuels.<sup>68</sup> In 2003, the 1-hour background CO concentration was 5 ppm and has decreased to 2 ppm in 2018.<sup>69</sup> 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 B 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.**

### (iii) Toxic Air Contaminants

#### On-Site Sources

When considering potential air quality impacts under CEQA, consideration is given to the location of sensitive receptors within close proximity of land uses that emit TACs. 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).<sup>70</sup> SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.<sup>71</sup> Together, CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources and the addition of new TAC sources in proximity to existing sensitive land uses.

<sup>67</sup> 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.

<sup>68</sup> SCAQMD, *Carbon Monoxide Redesignation Request and Maintenance Plan*, February 2005.

<sup>69</sup> SCAQMD, *2018 Air Quality Data Table*.

<sup>70</sup> CARB, *Air Quality and Land Use Handbook, a Community Health Perspective*, April 2005.

<sup>71</sup> SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005.

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 based on review of the air toxic sources listed in SCAQMD's and CARB's guidelines.

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

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).

**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 ten in 1 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 CARB Land Use Handbook recommends buffer distances between sensitive uses and certain sources of TACs. An initial search was performed using the SCAQMD 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 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.

The CARB Land Use Handbook also identifies a buffer distance of 1 mile for major rail yards. The Union Pacific Los Angeles Transportation Center (LATC) rail yard is located approximately 1.7 miles northeast of the Project Site, greater than the 1-mile buffer distance recommended by CARB. Sources of TAC emissions at the LATC rail yard include diesel exhaust from locomotives and heavy duty trucks transporting cargo to and from the

site. A Metro rail yard (Division 20) is located approximately 0.6 mile north of the Project Site. This rail yard is currently used for maintenance of the Metro Red/Purple lines, which are subway trains powered by electricity. Sources of TAC emissions from the Metro rail yard would be minimal as trains at this yard are powered by electric propulsion and would not generate emissions on-site.<sup>72</sup> Therefore, emissions and other TACs from this rail yard are not expected to affect future on-site sensitive receptors.

As discussed previously, a search of the SCAQMD FIND database did not show any permitted sources of TACs in the Project vicinity. Also, a site survey was performed to identify non-permitted sources of TACs. The site survey did not identify any sources of TACs in the Project vicinity.

**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 ten in 1 million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.**

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

## (2) Mitigation Measures

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

## (3) Level of Significance After Mitigation

Project impacts to sensitive receptors 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 VI, 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 or result in other emissions, such as those leading to

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<sup>72</sup> Los Angeles County Metropolitan Transportation Authority, Division 20 Portal Widening and Turnback Facility Project Final Environmental Impact Report, September 2018.

objectionable odors, that may impact a substantial number of people. **Thus, the Project would have a less than significant impact with respect to Threshold (d). No further analysis of this issue is required.**

## e. Cumulative Impacts

The following cumulative impacts analysis is based on the recommendations included in SCAQMD's *CEQA Air Quality Handbook*. According to SCAQMD, individual projects that exceed SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment.

As identified in Section III, Environmental Setting, of this Draft EIR, a total of 74 related projects are located in the vicinity of the Project Site. A map of the related project locations is provided in Figure III-1 in Section III, Environmental Setting, of this Draft EIR.

### (1) Impact Analysis

#### (a) Construction

As discussed under Threshold (b) above, the Project's construction-related air quality emissions and cumulative impacts would be less than significant. The Project would comply with regulatory requirements, including the SCAQMD Rule 403 requirements listed above. Based on SCAQMD guidance, individual construction projects that exceed the recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. As shown above, construction-related daily emissions at the Project Site would not exceed any of SCAQMD's regional or localized significance thresholds including NO<sub>x</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub>. **Therefore, the Project's contribution to cumulative air quality impacts due to localized emissions would not be cumulatively considerable and, therefore, would be less than significant.**

Similar to the Project, the greatest potential for TAC emissions at each related project would generally involve diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. 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 exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Construction activities are temporary and short-term events, thus construction activities at each related project would not result in a long-term substantial source of TAC emissions. Additionally, SCAQMD's *CEQA Air Quality*

*Handbook* and SCAQMD's supplemental online guidance/information do not require an HRA for short-term construction emissions. It is, therefore, not required or meaningful to evaluate long-term cancer impacts from construction activities which occur over relatively short durations. **As such, given the short-term nature of these activities, cumulative toxic emission impacts during construction would be less than significant.**

*(b) Operation*

As discussed above, the Project's operational air quality emissions, localized emissions and TACs would be less than significant. According to SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed 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.<sup>73</sup> As operational emissions did not exceed any of SCAQMD's regional or localized significance thresholds, the emissions of non-attainment pollutants and precursors generated by project operation would not be cumulatively considerable.

With respect to TAC emissions, neither the Project nor any of the 100 related projects (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. The Project and related projects would be consistent with the recommended screening level siting distances for TAC sources, as set forth in CARB's Land Use Guidelines, and the Project and related projects would not result in a cumulative impact requiring further evaluation. 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 airborne toxic control measures 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 Basin-wide TAC emissions reductions. 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.

**In conclusion, during construction, regional, localized, and TAC emissions would not be cumulatively considerable. Similarly, during operation, the Project would not result in a significant cumulative impact to air quality as the Project's**

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<sup>73</sup> SCAQMD, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, August 2003, Appendix D.

**contributions to regional, localized, and TAC emissions would be below significance thresholds.**

## **(2) Mitigation Measures**

Cumulative impacts with regard to air quality would be less than significant, during construction and over the long-term operating life of the Project. Therefore, no mitigation measures are required.

## **(3) Level of Significance After Mitigation**

Cumulative impacts with regard to air quality during both construction and operation would be less than significant without mitigation.