IV. Environmental Impact Analysis
B. Air Quality

1. Introduction

This section of the Draft EIR addresses the air emissions generated by construction and operation of the Project. The analysis also evaluates the consistency of the Project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP) and the City of Los Angeles (City) General Plan. The analysis of Project-generated air emissions focuses on whether the Project would cause an exceedance of an ambient air quality standard or SCAQMD significance threshold. Calculation worksheets, assumptions, and model outputs used in the analysis are included in Appendix B of this Draft EIR.

2. Environmental Setting

a. Air Quality Background

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

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

on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect the public health and welfare. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. The national and state standards have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. The national and state criteria pollutants and the applicable ambient air quality standards are listed in Table IV.B-1 on page IV.B-3.

b. Air Pollution 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 volatile organic compounds (VOCs) and nitrogen oxides (NO_X)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of O_3 irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more

Table IV.B-1
Ambient Air Quality Standards

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

ppm = parts per million by volume

µg/m^3 = micrograms per cubic meter

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

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

Pollutant	Averaging Period	California Standard[a,b]	Federal Standard[a,b]	SCAQMD Attainment Status[c]	
				California Standard[d]	Federal Standard[d]
expressed as a concentration that is not to be equaled or exceeded.					
[b] *Ambient Air Quality Standards based on the 2016 AQMP.*					
[c] *"Attainment" means that the regulatory agency has determined based on established criteria, that the Air Basin meets the identified standard. "Non-attainment" means that the regulatory agency has determined that the Air Basin does not meet the standard. "Unclassified" means there is insufficient data to designate an area, or designations have yet to be made.*					
[d] *California and Federal standard attainment status based on SCAQMD's 2016 AQMP.*					
[e] *An attainment re-designation request is pending.*					
Source: Eyestone Environmental, 2017.					

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

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

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

(c) Carbon Monoxide (CO)

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

(d) Nitrogen Dioxide (NO_2)

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

(e) Sulfur Dioxide (SO_2)

Sulfur oxides (SO_X) are compounds of sulfur and oxygen molecules. SO_2 is the predominant form found in the lower atmosphere and is a product of burning sulfur or burning materials that contain sulfur. Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

(f) Lead (Pb)

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

(g) Sulfates (SO_4^2)

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

(h) Hydrogen Sulfide (H_2S)

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

(2) Volatile Organic Compounds (VOCs)

VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the state as toxic air contaminants. While there are no specific VOC ambient air quality standards, VOC is a prime component (along with NO_X) of the photochemical processes by which such criteria pollutants as ozone, nitrogen dioxide, and certain fine particles are formed. They are, thus, regulated as "precursors" to the 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) 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.[1]

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 have a diameter less than 2.5 micrometer (μm)), including a subgroup of ultrafine particles (ultrafine particles have a diameter less than 0.1 μm). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics.

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

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.[2,3]

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 Regulations

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

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the National Ambient Air Quality Standard (NAAQS). These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA which are most applicable to the Project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

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[2] *CARB, Overview: Diesel Exhaust and Health, www.arb.ca.gov/research/diesel/diesel-health.htm, last reviewed by CARB April 12, 2016.*

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

Title I provisions are implemented for the purpose of attaining NAAQS. Table IV.B-1 on page IV.B-3 shows the NAAQS currently in effect for each criteria pollutant and their relative attainment status. The Air Basin fails to meet national standards for O_3 and $PM_{2.5}$ and, therefore, is considered a federal "non-attainment" area for these pollutants.

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

(b) State Regulations

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

(i) 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.[4] The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway,

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

urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day;[5] (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.

(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. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in CCR Title 13 states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) used during construction shall be limited to five minutes at any location. In addition, Section 93115 in CCR Title 17 states that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

(c) Regional

(i) South Coast Air Quality Management District

The SCAQMD shares responsibility with CARB for ensuring that all state and federal ambient air quality standards are achieved and maintained throughout all of Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County and Los Angeles County, except for the Antelope Valley; the non-desert portion of western San Bernardino County; and the western and Coachella Valley portions of Riverside County. The Air Basin is a subregion of the SCAQMD jurisdiction.

To meet the CAAQS and NAAQS, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs). The 2016 AQMP incorporates the Southern California

[5] *In November 2012, the Los Angeles City Planning Commission (CPC) issued an advisory notice (Zoning Information 2427) regarding the siting of sensitive land uses within 1,000 feet of freeways. The CPC deemed 1,000 feet to be a conservative distance to evaluate projects that house populations considered to be more at-risk from the negative effects of air pollution caused by freeway proximity. The CPC advised that applicants of projects requiring discretionary approval, located within 1,000 feet of a freeway and contemplating residential units and other sensitive uses (e.g., hospitals, schools, retirement homes, etc.) perform a Health Risk Assessment (HRA). The Project Site is not within 1,000 feet of a freeway and, therefore, would not be subject to this notice and warrant the preparation of an HRA.*

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 the new federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches.

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

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

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate the air quality issues associated with new development projects within the Air Basin, such as the Project. Instead, the SCAQMD published the *CEQA Air Quality Handbook* in November 1993 to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects proposed in the Air Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. The SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*.[6]

In order to assist the CEQA practitioner in conducting an air quality analysis in the interim while the replacement *Air Quality Analysis Guidance Handbook* is being prepared, supplemental guidance/information is provided on the SCAQMD website (www.aqmd.gov/ceqa/hdbk.html) and includes: (1) Emission Factors (EMFAC) model on-road vehicle emission factors; (2) background CO concentrations; (3) localized significance thresholds; (4) mitigation measures and control efficiencies; (5) mobile source

[6] *SCAQMD, Air Quality Analysis Handbook, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook, accessed November 23, 2017.*

toxics analysis; (6) off-road mobile source emission factors; (7) $PM_{2.5}$ significance thresholds and calculation methodology; and (8) updated SCAQMD Air Quality Significance Thresholds. The SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

The SCAQMD has also adopted land use planning guidelines in the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions.[7] SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity of freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

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

- SCAQMD Rule 403 (Fugitive Dust) 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 additional watering would be implemented 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

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

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 (Architectural Coatings) limits the volatile organic compound content of architectural coatings.

- 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 the Transportation Conformity Rule and other applicable federal, state, and air district laws and regulations. As the federally designated Metropolitan Planning Organization (MPO) for the six-county Southern California region, SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. In addition, SCAG is a co-producer, with the SCAQMD, of the transportation strategy and transportation control measure sections of the AQMP for the Air Basin.

SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy on April 7, 2016.[8,9] The 2016–2040 RTP/SCS reaffirms the land use policies that were incorporated into SCAG's prior 2012–2035 RTP/SCS. These foundational policies, which guided the development of the plan's land use strategies, include the following:

- Identify regional strategic areas for infill and investment;

[8] *SCAG, Final 2016–2040 RTP/SCS.*

[9] *CARB, Executive Order G-16-066, SCAG 2016 SCS ARB Acceptance of GHG Quantification Determination, June 2016.*

- Structure the plan on a three-tiered system of centers development;[10]
- Develop "Complete Communities";
- Develop nodes on a corridor;
- Plan for additional housing and jobs near transit;
- Plan for changing demand in types of housing;
- Continue to protect stable, existing single-family areas;
- Ensure adequate access to open space and preservation of habitat; and
- Incorporate local input and feedback on future growth.

The 2016–2040 RTP/SCS recognizes that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the region make choices that sustain existing resources and expand efficiency, mobility, and accessibility for people across the region. In particular, the 2016–2040 RTP/SCS draws a closer connection between where people live and work, and it offers a blueprint for how Southern California can grow more sustainably. The 2016–2040 RTP/SCS also includes strategies focused on compact infill development and economic growth by building the infrastructure the region needs to promote the smooth flow of goods and easier access to jobs, services, educational facilities, healthcare and more.

The 2016–2040 RTP/SCS states that the SCAG region was home to about 18.3 million people in 2012 and included approximately 5.9 million homes and 7.4 million jobs.[11] By 2040, the integrated growth forecast projects these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. High Quality Transit Areas (HQTAs) will account for 3 percent of regional total land but are projected to accommodate 46 percent and 55 percent of future household and employment growth respectively between 2012 and 2040.[12] The 2016–2040 RTP/SCS overall land use pattern

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[10] *Complete language: "Identify strategic centers based on a three-tiered system of existing, planned and potential relative to transportation infrastructure. This strategy more effectively integrates land use planning and transportation investment." A more detailed description of these strategies and policies can be found on pp. 90–92 of the SCAG 2008 Regional Transportation Plan, adopted in May 2008.*

[11] *The SCAG 2016–2040 RTP/SCS is based on year 2012 demographic data with growth forecasts developed for 2020, 2035, and 2040.*

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

reinforces the trend of focusing new housing and employment in the region's HQTAs. HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability. As discussed further below, the Project Site is located within an HQTA.

(d) Local Regulations

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 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 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.

The Air Quality Element establishes six goals:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimal 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;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

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 permits, and monitors and enforces implementation of such mitigation. The City uses the SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information for the environmental review of plans and development proposals within its jurisdiction.

(2) Toxic Air Contaminants

(a) State Regulations

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.[13] 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, including benzene, chloroform, formaldehyde, and particulate emissions from diesel-fueled engines, among others.[14] In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants 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

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[13] *CARB, California Air Toxics Program, www.arb.ca.gov/toxics/toxics.htm, last reviewed by CARB September 24, 2015.*

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

older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size, with the largest operators beginning compliance in 2014.[15]

The AB 1807 program is supplemented by the AB 2588 Air Toxics "Hot Spots" program, which was established by the California Legislature in 1987. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

The *Air Quality and Land Use Handbook: A Community Health Perspective* provides important air quality information about certain types of facilities (e.g., freeways, refineries, rail yards, ports, etc.) that should be considered when siting sensitive land uses such as residences.[16] CARB provides recommended site distances from certain types of facilities when considering siting new sensitive land uses. The recommendations are advisory and should not be interpreted as defined "buffer zones." If a project is within the siting distance, CARB recommends further analysis. Where possible, CARB recommends a minimum separation between new sensitive land uses and existing sources.

(b) Regional Regulations

SCAQMD has adopted two rules to limit TAC-related 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.

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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[15] *CARB, In-Use Off-Road Diesel-Fueled Fleets Regulation, www.arb.ca.gov/msprog/ordiesel/ordiesel.htm, last reviewed by CARB July 28, 2016.*

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

weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Air Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors, such as wind, sunlight, temperature, humidity, rainfall, and topography, affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential.

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

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

As part of the MATES-IV Study, the SCAQMD prepared a series of maps that shows regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps' estimates represent the number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years) in parts of the area. The MATES-IV map is

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

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.[18] Generally, the risk from air toxics is lower near the coastline and higher risks 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 Project vicinity.

(a) Existing Pollutant Levels at Nearby Monitoring Stations

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin and has divided the Air Basin into 27 source receptor areas (SRAs) in which 31 monitoring stations operate. Figure IV.B-1 on page IV.B-19 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, approximately 1.5 miles northeast of the Project Site. Criteria pollutants monitored at this station include PM_{10}, $PM_{2.5}$, O_3, CO, NO_2, SO_2, lead, and sulfate. Table IV.B-2 on page IV.B-20 identifies the national and state ambient air quality standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured at this station through the period of 2014–2016.

(b) Existing Health Risk in the Surrounding Area

As shown in Figure IV.B-2 on page IV.B-22, based on the MATES-IV model, the calculated cancer risk in the Project area is approximately 1830 in a million.[19] The cancer risk in this area is predominately related to nearby sources of diesel particulate (e.g., the US-101 and SR-110 freeways). In general, the risk at the Project Site is comparable with other urbanized areas in Los Angeles.

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[18] *SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV), MATES IV Interactive Carcinogenicity Map, 2015, www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b, accessed November 23, 2017.*

[19] *SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV), MATES IV Interactive Carcinogenicity Map, 2015, www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b , accessed November 23, 2017.*

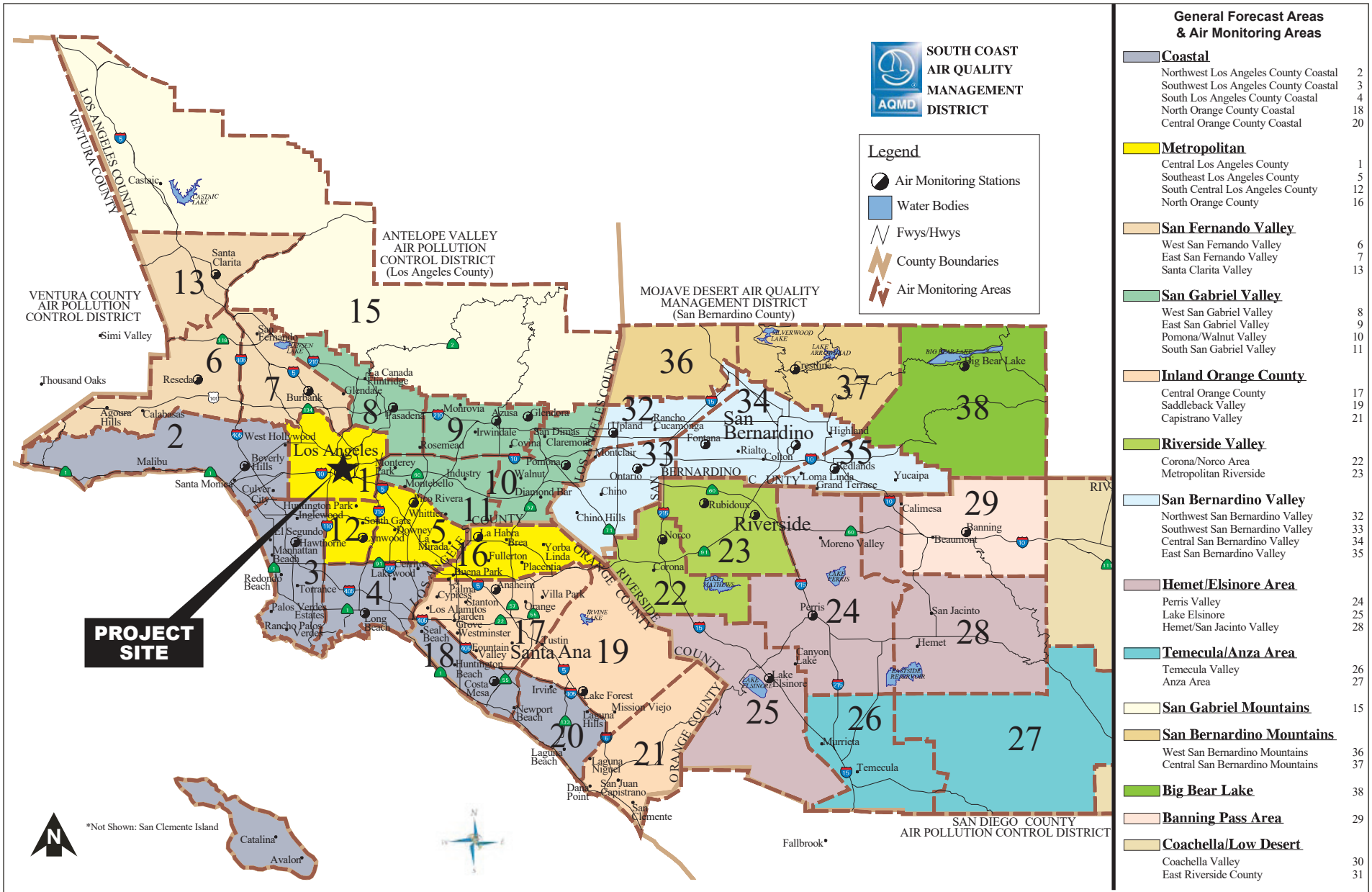

Figure IV.B-1
SCAQMD Source Receptor Areas

Source: Sierra Wade Associates, 2010.

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

Pollutant	Year		
	2014	2015	2016
Ozone (O_3)			
Maximum 1-hour Concentration (ppm)	0.11	0.10	0.10
Days exceeding CAAQS (0.09 ppm)	3	2	2
Maximum 8-hour Concentration (ppm)	0.09	0.07	0.08
Days exceeding NAAQS (0.070 ppm)	6	6	4
Days exceeding CAAQS (0.07 ppm)	6	6	4
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour Concentration (µg/m^3)	87	89	75
Days exceeding NAAQS (150 µg/m^3)	0	0	0
Days exceeding CAAQS (50 µg/m^3)	38	30	17
Annual Arithmetic Mean (µg/m3)	30	27	22
Does measured AAM exceed CAAQS (20 µg/m^3)?	Yes	Yes	Yes
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour Concentration (µg/m^3)	60	56	44
Days exceeding NAAQS (35 µg/m^3)	6	7	2
Annual Arithmetic Mean (µg/m^3)	19	19	13
Does measured AAM exceed NAAQS (12 µg/m^3)?	Yes	Yes	Yes
Does measured AAM exceed CAAQS (12 µg/m^3)?	Yes	Yes	Yes
Carbon Monoxide (CO)			
Maximum 1-hour Concentration (ppm)	3.2	3.2	1.9
Days exceeding NAAQS (35.0 ppm)	0	0	0
Days exceeding CAAQS (20.0 ppm)	0	0	0
Maximum 8-hour Concentration (ppm)	1.8	1.8	1.4
Days exceeding NAAQS and CAAQS (9 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour Concentration (ppm)	0.08	0.08	0.06
Days exceeding CAAQS (0.18 ppm)	0	0	0
Annual Arithmetic Mean (ppm)	0.02	0.02	0.02
Does measured AAM exceed NAAQS (0.0534 ppm)?	No	No	No
Does measured AAM exceed CAAQS (0.03 ppm)?	No	No	No
Sulfur Dioxide (SO_2)			
Maximum 1-hour Concentration (ppm)	0.01	0.01	0.01
Days exceeding CAAQS (0.25 ppm)	0	0	0
Maximum 24-hour concentration (ppm)	N/A	N/A	N/A
Days exceeding CAAQS (0.04 ppm)	0	0	N/A
Days exceeding NAAQS (0.14 ppm)	0	0	N/A
Annual Arithmetic Mean (ppm)	N/A	N/A	N/A
Does measured AAM exceed NAAQS (0.030 ppm)?	0	0	N/A

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

Pollutant	Year		
	2014	2015	2016
Lead			
Maximum 30-day Average Concentration (µg/m^3)	0.01	0.01	0.01
Does measured concentration exceed NAAQS (1.5 µg/m^3)	No	No	No
Maximum Calendar Quarter Concentration (µg/m^3)	0.01	0.01	0.01
Does measured concentration exceed CAAQS (1.5 µg/m^3)	No	No	No
Sulfate			
Maximum 24-hour Concentration (µg/m^3)	11	6.1	5.8
Does measured concentration exceed CAAQS (25 µg/m^3)	No	No	No

ppm = parts per million by volume

µg/m^3 = micrograms per cubic meter

AAM = annual arithmetic mean

Source: South Coast Air Quality Management District Ambient Monitoring Data (2014–2016), www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year, accessed October 31, 2018; California Air Resources Board Air Quality Data Statistics (2014–2016), www.arb.ca.gov/adam/topfour/topfour1.php, accessed October 31, 2018.

The Office of Environmental Health Hazard Assessment, on behalf of CalEPA, provides a screening tool called CalEnviroScreen that can be used to help identify California communities disproportionately burdened by multiple sources of pollution. According to CalEnviroScreen, the Project site is located in the 71st to 75th percentile, which means the Project site is worse than average in comparison to other communities within California.[20]

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 this information, no substantial sources (e.g., gasoline stations, dry cleaners, warehouse distribution) of TAC emissions within the Project Site vicinity were identified, and the location of the proposed residential uses would be consistent with the recommended siting distances (e.g., no sensitive receptors within 500 feet of a freeway) provided in the CARB guidance documents discussed above.

[20] *Office of Environmental Health Hazard Assessment, CalEnviroScreen 3.0 MAP, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30, accessed November 23, 2017.*

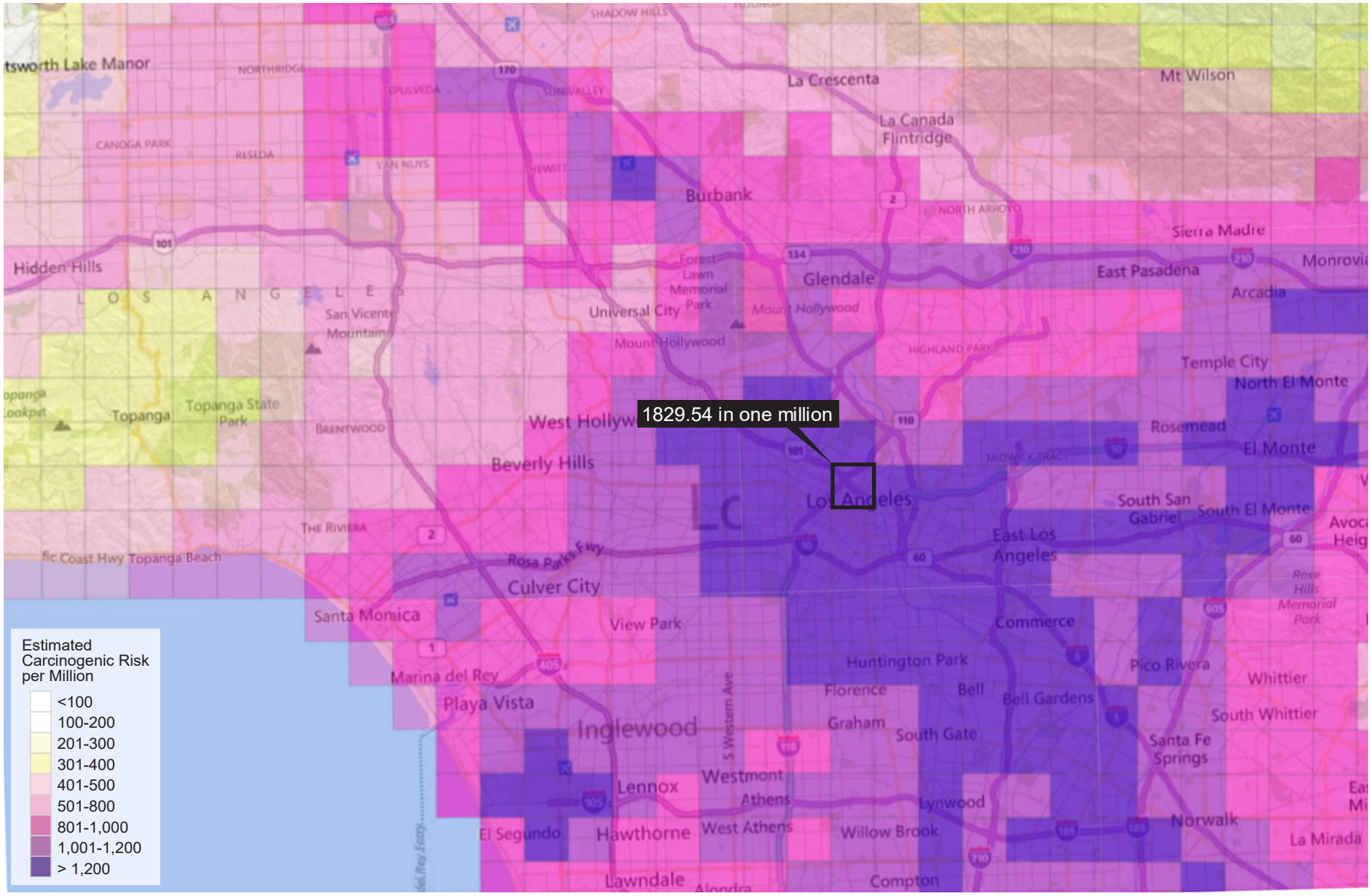

Figure IV.B-2
MATES IV Total Cancer Risk for Project Area

Source: South Coast AQMD, 2016.

(c) Surrounding Uses

As shown in Figure IV.B-3 on page IV.B-24, the Project Site is located in a highly urbanized area. The Project Site is surrounded by a mix of commercial office, government and civic office, retail, and residential uses contained in a range of low-rise to high-rise buildings, which are generally physically separated from the Project Site by local roadways. Immediately to the west is an existing surface parking lot and 10-story office building fronting Broadway. To the immediate north across 2nd Street is Los Angeles Times Square, which includes an 11-story office building and a six-level parking structure fronting 2nd Street. East of the Project Site across Spring Street are single-story commercial buildings and a six-level parking structure. To the south is a surface parking lot and six-story apartment building (Hosfield Building) fronting Broadway, as well as a surface parking lot and five-story apartment building (Douglas Building Lofts) fronting Spring Street.

Certain 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. As shown in Figure IV.B-3, the closest sensitive land uses to the Project Site are residential uses located south of the Project Site.

(d) Existing Project Site Emissions

The northern portion of the Project Site, where proposed development would occur, consists of a former surface parking lot, which is currently in use as a staging and excavation area for construction of the Los Angeles County Metropolitan Transportation Authority (Metro) Regional Connector 2nd Street/Broadway rail station and portal. The southern portion of the Project Site contains a five-story, approximately 67-foot-tall parking structure that includes rooftop parking and two subterranean levels, which would remain in use as part of the Project.

Area source emissions are generated by the use of maintenance equipment, landscape equipment, and products that contain solvents. Energy source emissions are typically associated with building natural gas usage. As the northern portion of the Project Site is currently used as a construction staging and excavation area (unrelated to the Project), energy source emissions are temporary and minimal. Additionally, the parking use in the southern portion of the Project Site does not directly generate vehicle trips, so mobile source emissions are likewise minimal. To provide a conservative analysis of the Project, existing source emissions are considered to be *de minimis*.

Figure IV.B-3
Air Quality Sensitive Receptor Locations

Source: Google Earth Pro, 2016; Eyestone Envrionmental, 2017.

3. Project Impacts

a. Methodology

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

(1) Construction Emissions Methodology

(a) Regional Emissions

Daily regional emissions during construction were forecasted based on the proposed construction schedule and applying the mobile-source and fugitive dust emissions factors derived from the SCAQMD recommended California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Details of the modeling assumptions and emission factors are provided in Appendix B of this Draft EIR. The calculations of the emissions generated during project construction activities reflect the types and quantities of construction equipment that would be used to remove the existing pavement, grade and excavate the Project Site, construct the proposed building and related improvements, and plant new landscaping within the Project Site.

(b) Localized Emissions

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's localized significance thresholds (LST) methodology, which uses on-site mass emissions rate look-up tables and Project-specific modeling, where appropriate.[21] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X, CO, PM_{10}, and $PM_{2.5}$. SCAQMD does not provide an LST for SO_2 since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant. Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD LST for VOCs. Due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of

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

that pollutant for each source receptor area and distance to the nearest sensitive receptor. The mass rate look-up tables were developed for each source receptor area and can be used 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. If the project exceeds the LST look-up values, then the SCAQMD recommends that project-specific air quality modeling must be performed. Please refer to Subsection (a) under Threshold (d), below, for the analysis of localized impacts from on-site construction activities.

(2) Operational Emissions Methodology

(a) Regional Emissions

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

Similar to construction, SCAQMD's CalEEMod software was used for the evaluation of Project emissions during operation. CalEEMod was used to calculate on-road fugitive dust, architectural coatings, landscape equipment, energy use, mobile source, and stationary source emissions. To determine if a significant air quality impact would occur, the net increase in regional operational emissions generated by the Project was compared against the SCAQMD's significance thresholds.[22] Please refer to Appendix B for additional information regarding methodology.

[22] *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.).*

(b) Localized Emissions

(i) On-Site Emissions

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

(ii) Off-Site Emissions

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

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections.[23,24,25] 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.[26] 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).[27] With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the SCAQMD have steadily declined.

The analysis prepared for CO attainment in the Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide.[28] In the 1992 CO Plan, a CO hot spot analysis was conducted for the four worst-case scenario intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: (1) Long Beach Boulevard and Imperial Highway (Lynwood); (2) Wilshire Boulevard and Veteran Avenue (Westwood); (3) Sunset Boulevard and Highland Avenue (Hollywood); and (4) La

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

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

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

[26] *USEPA, Timeline of Major Accomplishments in Transportation, Air Pollution, and Climate Change, www.epa.gov/air-pollution-transportation/timeline-major-accomplishments-transportation-air-pollution-and-climate, accessed November 23, 2017.*

[27] *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.*

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

Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The peak modeled CO concentrations due to vehicle emissions occurred at the intersection of Wilshire Boulevard and Veteran Avenue, which had a daily traffic volume of approximately 100,000 vehicles per day. The 2003 AQMP estimated the 1-hour concentration for this intersection at 4.6 ppm, which indicates the most stringent 1-hour CO standard (20.0 ppm) would not likely be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day.[29] Metro evaluated the level of service (LOS) in the vicinity of the Wilshire Boulevard and Veteran Avenue intersection and found it to be Level E during peak morning traffic and Level F during peak afternoon traffic.[30,31] 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 the screening method does not rule out significant impacts for an intersection, then detailed analysis using the California Line Source Dispersion model (CALINE4) is conducted.

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

Potential TAC impacts are evaluated by conducting a qualitative analysis consistent with the CARB Handbook followed by a more detailed analysis (i.e., dispersion modeling), as necessary. The qualitative analysis consists of reviewing the Project to identify any new or modified TAC emissions sources. If the qualitative evaluation does not rule out significant impacts from a new source, or modification of an existing TAC emissions source, a more detailed analysis is conducted. For the detailed analysis, downwind sensitive receptor locations are identified, and site-specific dispersion modeling is conducted to estimate Project impacts.

b. Thresholds of Significance

(1) State CEQA Guidelines Appendix G

In accordance with State CEQA Guidelines Appendix G (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;

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

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

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

Threshold (b): Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

Threshold (c): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

Threshold (d): Expose sensitive receptors to substantial pollutant concentrations; or

Threshold (e): Create objectionable odors affecting a substantial number of people.

(2) 2006 L.A. CEQA Thresholds Guide

(a) Construction

The *L.A. CEQA Thresholds Guide* states that the determination of significance shall be made on a case-by-case basis, considering the following factors to evaluate construction-related air emissions:

(i) Combustion Emissions from Construction Equipment

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

(ii) Fugitive Dust—Grading, Excavation and Hauling

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

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

- Length and type of road;

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

(iv) Other Mobile Source Emissions

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

These factors are important inputs in determining the amounts and nature of air emissions generated by a project during construction. However, in assessing impacts due to construction-related air emissions in this section, the City will use the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook* and Appendix G as the thresholds of significance. The factors identified above from the *L.A. CEQA Thresholds Guide* will be used where applicable and relevant to assist in analyzing the SCAQMD's *CEQA Air Quality Handbook* criteria and Appendix G thresholds.

The following criteria set forth in the SCAQMD's *CEQA Air Quality Handbook* serve as quantitative air quality standards to be used to evaluate project impacts along with the Appendix G thresholds:[32]

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 100 pounds per day for NO_X; (2) 75 pounds a day for VOC; (3) 150 pounds per day for PM_{10} or SO_X; (4) 55 pounds per day for $PM_{2.5}$; and (5) 550 pounds per day for CO.
- 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 ppm [23,000 µg/m^3] over a 1-hour period or 9.0 ppm [10,350 µg/m^3] averaged over an 8-hour period) and NO_2 (0.18 ppm [339 µg/m^3] over a 1-hour period, 0.1 ppm [188 µg/m^3] over a three-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm [57 µg/m^3] averaged over an annual period).
- Maximum on-site localized PM_{10} or $PM_{2.5}$ emissions during construction exceed the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed the incremental 24-hour threshold of 10.4 µg/m^3 or 1.0 µg/m^3 PM_{10} averaged over an annual period.

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

(b) Operation

The *L.A. CEQA Thresholds Guide* bases the determination of significance of operational air quality impacts on criteria set forth in the SCAQMD's *CEQA Air Quality Handbook.*[33] As discussed above, the City has chosen to use Appendix G as the thresholds of significance for this analysis. Accordingly, the following serve as quantitative air quality standards to be used to evaluate project impacts under the Appendix G thresholds:

- Operational emissions exceed 10 tons per year of volatile organic gases or any of the following SCAQMD prescribed threshold levels: (1) 55 pounds a day for VOC;[34] (2) 55 pounds per day for NO_X; (3) 550 pounds per day for CO; (4) 150 pounds per day for SO_X; (5) 150 pounds per day for PM_{10}; and (6) 55 pounds per day for $PM_{2.5}$.[35,36]

- Maximum on-site daily localized emissions exceed the LST, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 parts per million (ppm) over a 1-hour period or 9.0 ppm averaged over an 8-hour period) and NO_2 (0.18 ppm over a 1-hour period, 0.1 ppm over a 3-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm averaged over an annual period).[37]

- Maximum on-site localized operational PM_{10} and $PM_{2.5}$ emissions exceed the incremental 24-hour threshold of 2.5 $\mu g/m^3$ or 1.0 $\mu g/m^3$ PM_{10} averaged over an annual period.[38]

- 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.

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

[34] *For purposes of this analysis, emissions of VOC and reactive organic compounds (ROG) are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.*

[35] *City of Los Angeles, L.A. CEQA Thresholds Guide, 2006, p. B.2-5.*

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

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

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

(c) Toxic Air Contaminants

The *L.A. CEQA Thresholds Guide* states that the determination of significance shall be made on a case-by-case basis, considering the following as a screening factor to evaluate TACs:

- Would the project use, store, or process carcinogenic or non-carcinogenic toxic air contaminants which could result in airborne emissions?

Projects which have the potential to use, store, or process TACs require further study and analysis. The *L.A. CEQA Thresholds Guide* considers the following factors in evaluating significance related to TAC emissions:

- The regulatory framework for the toxic material(s) and process(es) involved;
- The proximity of the toxic air contaminants 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.

In assessing impacts related to TACs in this section, the City will use Appendix G as the thresholds of significance. The criteria identified above from the *L.A. CEQA Thresholds Guide* will be used where applicable and relevant to assist in analyzing the Appendix G threshold questions. In addition, the following criteria set forth in the SCAQMD's *CEQA Air Quality Handbook* serve as quantitative air quality standards to be used to evaluate project impacts under Appendix G thresholds:[39]

- The Project results in the exposure of sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0.[40] For projects with a maximum incremental cancer risk between 1 in one million and 10 in one million, a project would result in a significant impact if the cancer burden exceeds 0.5 excess cancer cases.

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

[40] *Hazard index is the ratio of a toxic air contaminant's concentration divided by its Reference Concentration, or safe exposure level. If the hazard index exceeds one, people are exposed to levels of TACs that may pose noncancer health risks.*

(d) Consistency with Applicable Air Quality Plans

CEQA Guidelines Section 15125 requires an analysis of project consistency with applicable governmental plans and policies. This analysis is conducted to assess potential project impacts against Appendix G Threshold (a). In accordance with the SCAQMD's *CEQA Air Quality Handbook*, the following criteria shall be used to evaluate a project's consistency with SCAQMD and SCAG regional plans and policies, including the AQMP, consistent with the Appendix G thresholds:[41]

- 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?
- 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 land use policies?

The Project's impacts with respect to these criteria are discussed to assess the consistency with the SCAQMD's AQMP and SCAG regional plans and policies. In addition, the Project's consistency with the City of Los Angeles General Plan Air Quality Element is discussed.

c. Analysis of Project Impacts

(1) Project Design Features

No specific project design features are proposed with regard to air quality. However, the Project would incorporate a number of design features to support and promote environmental sustainability as discussed in Section IV.D, Greenhouse Gas Emissions, and Section IV.M, Energy Conservation and Infrastructure, of this Draft EIR. While these

[41] *SCAQMD, CEQA Air Quality Handbook, April 1993, p. 12-3.*

features are designed primarily to reduce greenhouse gas emissions and energy usage, they would also serve to reduce criteria air pollutant emissions. Specifically, GHG-PDF-1 in Section IV.D, Greenhouse Gas Emissions, requires the proposed building design to incorporate a number of sustainability features, including: exceeding Title 24 energy efficiency requirements by 10 percent; installation of efficient heating, ventilation, and air conditioning (HVAC) mechanical systems; the use of Energy Star-labeled appliances; and the use of LED lighting or other energy-efficient lighting technologies, among other features. GHG-PDF-2 requires the installation of electric vehicle charging equipment and future electric vehicle supply equipment (EVSE) in a percentage of the Project's code-required parking spaces provided in the existing parking structure on-site, thus promoting the use of electric and other Low-Emission Vehicles (LEVs). In addition, per ENG-PDF-1 set forth in Section IV.M, Energy Conservation and Infrastructure, natural gas-fueled fireplaces would be limited to up to 20 percent of the proposed residential units.

(2) Relevant Project Characteristics

As described in detail in Section II, Project Description, of this Draft EIR, the Project involves the development of a 30-story mixed-use building consisting of 107 residential units (comprising an estimated 137,347 square feet), plus 7,200 square feet of ground level commercial retail uses, and 534,044 square feet of office uses. The proposed residences would include 12 studios, 42 one-bedroom units, 40 two-bedroom units, and 13 three-bedroom units. The Project's vehicular trip generation characteristics are discussed in Section IV.J, Transportation/Traffic, of this Draft EIR.

Project construction is expected to occur in one primary phase, with no overlap with construction of the Metro portal and station on-site. As previously discussed, the on-site portal and station are currently under construction, and the Metro Regional Connector line is forecasted to open in 2021. Construction of the Project is anticipated to begin in 2022 and be complete by 2025. Construction activities would involve limited demolition of paved areas and landscaping as well as approximately 7,000 cubic yards of graded soil materials, which would be exported off-site to Chiquita Canyon Landfill and/or Manning Pit in Irwindale. The haul route to/from Chiquita Canyon Landfill is anticipated to follow segments of 2nd Street, Spring Street, 3rd Street, and Aliso Street in Downtown Los Angeles; CA-110, US-101, CA-170, and I-5; as well as Newhall Ranch Road, SR-126, and Henry Mayo Drive in Castaic. Alternatively, the haul route to/from Irwindale would follow segments of 2nd Street, Spring Street, 4th Street, Los Angeles Street, El Monte Busway East, and Arcadia Street in Downtown; US-101 and I-10; and Vincent Drive in Irwindale.

(3) Project Impacts

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

(a) SCAQMD CEQA Air Quality Handbook Policy Analysis and SCAG 2016–2040 RTP/SCS Consistency

The following analysis addresses the Project's consistency with applicable SCAQMD and SCAG policies, including the SCAQMD's 2016 AQMP and growth projections within the SCAG 2016–2040 RTP/SCS. In accordance with the procedures established in the SCAQMD's *CEQA Air Quality Handbook*, the following criteria are required to be addressed in order to determine the Project's consistency with applicable SCAQMD and SCAG policies:

- 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 land use policies?

With respect to the first criterion, as discussed in Subsection 3.d below, localized concentrations of NO_2 as NO_X, CO, PM_{10}, and $PM_{2.5}$ have been analyzed for the Project. SO_2 emissions would be negligible during construction and long-term operations, and, therefore, would not have the potential to cause or affect a violation of the SO_2 ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. Due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

Particulate matter is the primary pollutant of concern during construction activities, and, therefore, the Project's PM_{10} and $PM_{2.5}$ emissions during construction were analyzed in order to: (1) ascertain potential effects on localized concentrations; and (2) determine if there is a potential for such emissions to cause or affect a violation of the ambient air quality standards for PM_{10} and $PM_{2.5}$. **As demonstrated in the analysis below (see Table IV.B-5 on page IV.B-47 later in this section), the increases in PM_{10} and $PM_{2.5}$**

emissions during construction would not exceed the SCAQMD-recommended significance thresholds at sensitive receptors in proximity to the Project Site.

Additionally, the Project's maximum potential NO_X and CO daily emissions during construction were analyzed to 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.B-5 on page IV.B-47 later in this section, NO_X and CO would not exceed the SCAQMD-recommended localized significance thresholds. Therefore, Project construction would not result in a significant impact with regard to localized air quality.**

Because the Project would not introduce any substantial stationary sources of emissions, CO is the preferred benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations.[42] **As indicated below in Subsection (d) under Threshold (d), 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.**

As discussed below, an analysis of potential localized operational impacts from on-site activities was conducted. As demonstrated in the analysis below (see Table IV.B-6 on page IV.B-48 later in this section), localized NO_2 as NO_X, CO, PM_{10}, and $PM_{2.5}$ operational impacts would be less than significant. Therefore, the Project would not increase the frequency or severity of an existing violation or cause or contribute to new violations for these pollutants. **As the Project would not exceed any of the state and federal standards, the Project would also not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP.**

With respect to the determination of 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, also listed above: (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.

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

- 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 RTP. As discussed at length in Section IV.F, Land Use, of this Draft EIR, the General Plan serves as a comprehensive, long-term plan for future development of the City. Refer to Subsection 3.d.4, City of Los Angeles Policies, 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 local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. As discussed in Section IV.H, Population, Housing, and Employment, of this Draft EIR, according to the 2016–2040 RTP/SCS, the forecasted population for the City of Los Angeles Subregion in 2016 was approximately 3,954,629 persons.[43] In 2025, the Project's anticipated occupancy year, the City of Los Angeles Subregion is anticipated to have a population of approximately 4,200,168 persons.[44] Based on a household size factor of 2.44 persons per household for multi-family housing units, the Project is estimated to generate a residential population of 261 persons at full buildout.[45] The estimated 261 new residents generated by the Project would represent approximately 0.11 percent of the population growth forecasted by SCAG in the City of Los Angeles Subregion between 2016 and 2025.

Development of the Project also would result in approximately 2,322 employment positions on-site. As discussed in Section IV.H, Population, Housing, and Employment, of this Draft EIR, according to the 2016–2040 RTP/SCS, the employment forecast for the City

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

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

[45] *Per correspondence with Matthew Glesne, Housing Planner, Los Angeles Department of City Planning, January 20, 2016. Based on the 2014 Census American Community Survey (ACS) 1-Year Estimate data, the persons per household for multi-family units was calculated by looking at "tenure by units in structure" and "total population in occupied housing units by tenure by units in structure. While an updated average of 2.43 persons per household for multi-family housing units in the City is now available based on the ACS 5-year (2012–2016) Average Estimates, use of the previous factor of 2.44 persons per household yields a more conservative analysis, as presented herein.*

of Los Angeles Subregion in 2016 was approximately 1,763,929 employees.[46] In 2025, the City of Los Angeles Subregion is anticipated to have approximately 1,915,868 employees.[47] Thus, the Project's estimated 2,322 employees would constitute approximately 1.53 percent of the employment growth forecasted between 2016 and 2025. **Because the Project's resulting residential and employment growth would fall well within the growth forecasts for the City and similar projections form the basis of the 2016 AQMP, it can be concluded that the Project would be consistent with the projections in the AQMP.** Please refer to Section IV.F, Land Use, of this Draft EIR, for additional discussion regarding the Project's consistency with the 2016–2040 RTP/SCS.

- Does the project implement feasible air quality mitigation measures?

As discussed below under Thresholds (b), (c), and (d), the Project would not result in any significant air quality impacts and therefore would not require mitigation. In addition, the Project would comply with all applicable regulatory standards as required by SCAQMD, as summarized above. The Project also would incorporate project design features to support and promote environmental sustainability, as discussed earlier and detailed in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce the criteria air pollutants discussed herein. **Furthermore, with compliance with the regulatory requirements identified above and in Section IV.D, Greenhouse Gas Emissions, no significant air quality impacts would occur. As such, the proposed Project meets this AQMP consistency criterion.**

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

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

The Project would be designed and constructed to support and promote environmental sustainability. The Project represents an infill development within an existing urbanized area that would concentrate new residential, commercial retail, and office uses within an HQTA. As previously discussed, Metro's 2nd Street/Broadway rail station and portal are currently under construction within the northwest corner of the site at

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

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

2nd Street and Broadway. In addition, the Project Site is located approximately 700 feet from the Civic Center/Grand Park Metro Purple and Red line station and is served by 16 Metro local lines and one Dash line. The Project would provide 68 short-term and 218 long-term bicycle parking spaces to further encourage biking. As discussed further in Section IV.F, Land Use, of this Draft EIR, the Project has been designed to promote walkability, given its location within a major job center (Downtown LA), as well as retail/restaurant uses and other entertainment opportunities.

"Green" principles are incorporated throughout the Project to comply with the City of Los Angeles Green Building Code and the California Green Building Standards Code (CALGreen) through energy conservation, water conservation, and waste reduction features. As previously discussed, a number of sustainability features would be integrated in the Project's design, including energy-saving technologies and components; high efficiency appliances and fixtures; solar passive design, natural ventilation, and thoughtful building orientation; a stormwater capture and use system (i.e., harvesting system) to irrigate the landscaped areas of the Project Site, water-efficient plantings with drought-tolerant species; etc. Performance checks and post-construction commissioning of building energy systems also would be conducted to ensure that energy-efficiency measures incorporated into the Project operate as designed.

As discussed further in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, the Project's design includes characteristics that would reduce vehicular trips and VMT as compared to a standard development within the Air Basin, as measured by the air quality model CalEEMod. While these Project characteristics primarily reduce greenhouse gas emissions, they also would reduce criteria air pollutants. 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 an infill, HQTA area that offers a number of alternative modes of transportation. Specifically, the Project characteristics listed below are consistent with the California Air Pollution Control Officer's Association (CAPCOA) guidance document, *Quantifying Greenhouse Gas Mitigation Measures*, which identifies the VMT and vehicle trips reductions for the Project Site relative to the standard trip and VMT rates in CalEEMod, and which corresponds to reductions relative GHG emissions.[48] Measures applicable to the Project include the following; a brief description of the Project's relevance to each measure is also provided:

- **CAPCOA Measure LUT-1—Increase Density:**[49] Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduces emissions

[48] *CAPCOA, Quantifying Greenhouse Gas Mitigation Measures, 2010.*

[49] *"LUT" refers to the Land Use/Location category of CAPCOA's Transportation measures.*

associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies, such as enhanced transit services. The Project would result in a net increase of approximately 39 dwelling units per acre and 857 jobs per acre.

- **CAPCOA Measure LUT-3—Increase Diversity of Urban and Suburban Developments (Mixed-Uses):** The Project would introduce new uses on the Project Site, including new residential, commercial retail, and office uses. The Project would locate these uses in proximity to other existing off-site residential, office, retail, restaurant, and hotel uses. The increased land use diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation (i.e., walking and biking), which would result in corresponding reductions in transportation-related emissions.

- **CAPCOA Measure LUT-5—Increase Transit Accessibility:** The Project would be located on top of the 2nd Street/Broadway rail station and approximately 700 feet from the Civic Center/Grand Park Metro Purple and Red line station, with service by 16 Metro local lines and one Dash line. The Project would also provide bicycle parking spaces for the proposed uses to encourage the use of alternative modes of transportation.

- **CAPCOA Measure LUT-9—Improve Design of Development**: The Project would remove a former surface parking lot and enhance the pedestrian environment by developing ground floor retail uses to foster pedestrian activity. The Project also would improve the streetscape on the site's street frontages by improving sidewalks and amenities, which would be integrated with the Metro station plaza and a new landscaped passage or paseo traversing the site, thus making the site more attractive to pedestrians and enhancing walkability. The Project would include a high level of street access, which would improve street accessibility and connectivity.

- **CAPCOA Measure SDT-1—Provide Pedestrian Network Improvements:** The Project's design would improve pedestrian access by minimizing physical barriers and linking the Project Site with external streets and the on-site Metro station via a landscaped paseo, thus encouraging people to walk or take the Metro instead of driving. These types of direct access to the Project Site would reduce VMT and associated transportation-related emissions.

- **CAPCOA Measure SDT-2—Traffic Calming Measures:** The Project would provide traffic calming measures to encourage people to walk or bike instead of using a vehicle, including implementation of a Transportation Demand Management (TDM) Plan, as well as a fixed-fee financial contribution toward funding traffic signal upgrades at affected intersections. The mode shift would reduce VMT. Refer to Section IV.J, Transportation/Traffic, of this Draft EIR for further discussion of proposed traffic calming measures.

Implementation of these features would contribute to a reduction in air quality emissions via a reduction in vehicle trips and VMT. Accordingly, as the Project would support the City's and SCAQMD's objectives of reducing VMT and the related vehicular air emissions, the Project would be consistent with AQMP land use policies.

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, commercial retail, and office uses within an HQTA, 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_X, PM_{10}, and $PM_{2.5}$. Also, the Project would be consistent with the goals and policies of the AQMP for the control of fugitive dust. As discussed above, the Project's would be consistent with the goals and policies of the AQMP and, therefore, is considered consistent with the SCAQMD's AQMP. Accordingly, the Project would not conflict with or obstruct implementation of the AQMP, and associated impacts would be less than significant.**

(b) City of Los Angeles Policies

The Project would promote the General Plan Air Quality Element goals, objectives and policies, as discussed at length in Section IV.F, Land Use, of this Draft EIR. In particular, the Project includes 286 bicycle parking spaces (including 218 long-term spaces and 68 short-term spaces for the proposed residential, commercial retail, and office uses). In addition to bicycle parking, the Project would offer convenient access to public transit and opportunities for walking and biking, thereby facilitating a reduction in VMT. In addition, the Project would be consistent with the existing land use pattern in the vicinity that concentrates urban density along major arterials and near transit options. The Project also includes primary entrances for pedestrians and bicyclists that would be safe, easily accessible, and a short distance from transit stops. As discussed above, the Project would implement numerous sustainability features that would reduce vehicular trips, reduce VMT, and encourage use of alternative modes of transportation. **Based on the above analysis, the Project would be consistent with applicable policies of the Air Quality Element.**

Please refer to Section IV.F, Land Use, of this Draft EIR, for a detailed consistency analysis of the City's General Plan. As concluded therein, the Project would support or implement the City's applicable policies related to air quality.

Threshold (b): Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

(a) Construction

(i) Regional Construction Impacts

As described in Section II, Project Description, of this Draft EIR, the Project is anticipated to be constructed in one primary phase, with no overlap with construction of the Metro station on-site. The Metro station is forecasted to open in 2021, and construction of the Project would begin in 2022 and be complete by 2025. Construction activities would require approximately 7,000 cubic yards of grading, all of which would be exported off-site to Chiquita Canyon Landfill and/or Irwindale Landfill. For additional construction assumptions, please Appendix B of this Draft EIR.

Project construction has the potential to generate air emissions through the use of heavy-duty construction equipment and vehicle trips by construction workers traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and construction activities. Mobile source emissions, primarily NO_X, would result from the use of construction equipment, such as dozers, loaders, and cranes. During the building finishing phase, 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.

This analysis also conservatively assumes a round trip haul distance of 80 miles to the Chiquita Canyon Landfill, which is currently accepting clean soil. However, closer locations may be determined feasible (Vulcan Materials in Irwindale, with a round trip length of 50 miles, also currently accepts clean soil), which would result in lower emissions for the Project.

The emissions levels in Table IV.B-3 on page IV.B-43 represent the highest daily emissions projected to occur during each year of construction. **As presented therein, 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_X, CO, SO_X, PM_{10}, or $PM_{2.5}$. Therefore, regional construction emissions resulting from the Project would result in a less-than-significant impact.**

Table IV.B-3
Estimate of Maximum Regional Project Daily Construction Emissions—Unmitigated
(pounds per day)

Construction Year	VOC[b]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Regional Construction Emissions						
Year 2022	7	60	59	<1	8	3
Year 2023	6	37	58	<1	7	3
Year 2024	31	35	59	<1	8	3
Year 2025	31	34	58	<1	8	3
Maximum Unmitigated Construction Emissions[c]	31	60	59	<1	8	3
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(44)	(40)	(491)	(150)	(142)	(52)
Maximum Unmitigated Construction Emissions Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

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

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

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

Source: Eyestone Environmental, 2018.

(ii) Localized Construction Impacts

Please refer to the analysis of localized impacts from on-site construction activities under Threshold (d), below. **As discussed under Threshold (d), Project-related construction emissions would not expose sensitive receptors to substantial criteria pollutant concentrations. As such, construction impacts with regard to localized emissions would be less than significant.**

(b) Operation

(i) Regional Operational Impacts

As discussed above, SCAQMD's CalEEMod was used to calculate regional area, energy, mobile source, and stationary emissions. As also previously discussed, the Project would incorporate design features to support and promote environmental sustainability, as detailed further in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce criteria air pollutants. For purposes of this analysis, project design features

with a quantifiable effect on impacts include the Project's accessibility to transit and resulting increase in the diversity of land uses and density in the Project area.

Table IV.B-4 below provides the Project's operational emissions with incorporation of relevant design features. **As shown in Table IV.B-4, emissions resulting from operation of the Project at its projected buildout year of 2025 are not expected to exceed the SCAQMD's daily regional operational thresholds. Regional operational impacts would be less than significant.**

Table IV.B-4
Estimate of Maximum Regional Project Daily Operational Emissions—At Project Buildout (2025)[a]

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project						
Area	15	<1	9	<1	<1	<1
Energy (Natural Gas)	<1	2	1	<1	<1	<1
Mobile	6	24	46	<1	13	4
Emergency Generator(s)	<1	<1	2	<1	<1	<1
Total Proposed Uses Emissions	**21**	**26**	**59**	**<1**	**13**	**4**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	**(34)**	**(29)**	**(491)**	**(150)**	**(137)**	**(51)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

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

Source: Eyestone Environmental, 2018.

(ii) Localized Operational Impacts

Please refer to the analysis of localized impacts from on-site operational activities under Threshold (d), below. **As discussed under Threshold (d), Project-related operational emissions would not expose sensitive receptors to substantial criteria pollutant concentrations. As such, operational impacts with regard to localized emissions would be less than significant.**

Threshold (c): Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

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

According to the SCAQMD, individual projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. **As shown in Table IV.B-3 on page IV.B-43 and in Table IV.B-4, Project construction and operational daily emissions at the Project Site would not exceed any of the SCAQMD's regional thresholds, respectively. Therefore, the Project's contribution to cumulative regional emissions would not be cumulatively considerable and, therefore, would be less than significant. Similarly, as analyzed below, 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.**

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

(a) Localized Impacts from On-Site Construction Activities

As discussed above in the methodology subsection, the localized construction air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look-up tables provided by the SCAQMD were used to determine localized construction emissions thresholds for the Project.[50] 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 (2014–2016) for the Project area presented in Table IV.B-2 on page IV.B-20. Although the trend shown in Table IV.B-2 demonstrates that ambient air quality is improving in the area, the localized construction emissions analysis conservatively did not apply a reduction in background pollutant concentrations for subsequent years of construction (i.e., 2022–2025). By doing so, the allowable pollutant

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

increment to not exceed an ambient air quality standard is more stringent. This analysis is based on existing background ambient air quality monitoring data (2014–2016).

Maximum on-site daily construction emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ were calculated using CalEEMod and compared to the applicable SCAQMD LSTs for SRA 1 based on construction site acreage of 2.7 acres. Potential impacts were evaluated at the closest off-site sensitive receptor, which are residences located south of the Project Site. The closest receptor distance on the SCAQMD mass rate LST look-up tables is 25 meters. Based on SCAQMD LST methodology, projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.[51]

The maximum daily localized emissions from Project construction and LSTs are presented in Table IV.B-5 on page IV.B-47. As presented therein, maximum construction emissions would not exceed the SCAQMD-recommended localized screening thresholds. As a result, Project-related construction activities would not expose sensitive receptors to substantial criteria pollutant concentrations, and construction of the Project would result in a less-than-significant impact with regard to localized emissions.

(b) Toxic Air Contaminants—Construction

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 three years, the Project would not result in a long-term (i.e., 70-year) source of TAC emissions. No residual emissions and corresponding individual cancer risk are anticipated after construction. **Because there would be such a short-term exposure period, construction of the Project would not expose sensitive receptors to substantial TAC pollutant concentrations, and construction TAC emissions would result in a less-than-significant impact.**

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

Table IV.B-5
Estimate of Maximum Localized Daily Project Construction Emissions–Unmitigated
(pounds per day)[a]

Construction Year	NO_X	CO	PM_{10}	$PM_{2.5}$
Year 2022	38	44	4	2
Year 2023	35	43	2	1
Year 2024	31	43	1	1
Year 2025	33	43	1	1
Maximum Unmitigated Daily Localized Emissions	**38**	**44**	**4**	**2**
SCAQMD Localized Significance Thresholds[b]	**42**	**1209**	**10**	**5**
Over/(Under)	**(4)**	**(1165)**	**(6)**	**(3)**
Exceed Threshold?	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

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

[b] *Potential localized construction impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The closest existing sensitive receptor is comprised of residential uses adjacent to the south of the Project Site. The localized threshold is based on a 25 meter receptor distance which is the closest receptor distance on the SCAQMD mass rate LST look-up table.*

Source: Eyestone Environmental, 2018.

(c) Localized Impacts from On-Site Operational Activities

Operation of the Project would not introduce any major new sources of air pollution within the Project Site. As discussed previously, the Project's on-site emissions sources would include natural gas combustion for heating and hot water, landscaping equipment, and consumer product usage, which are not considered major sources of air pollution. Emissions estimates for criteria air pollutants from on-site sources are presented in Table IV.B-6 on page IV.B-48. The SCAQMD LST mass rate look-up tables, which apply to projects that have active areas that are less than or equal to 5 acres in size, were used to evaluate potential localized impacts. **As shown in Table IV.B-6, on-site operational emissions would not exceed any of the LSTs. As such, Project operations would not expose sensitive receptors to substantial criteria pollutant concentrations and would result in a less-than-significant impact with regard to localized emissions.**

(d) 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.

Table IV.B-6
Estimate of Maximum Localized Project Daily Operational Emissions—Project Buildout (2025)[a]
(pounds per day)

Emission Source	NO_X	CO	PM_{10}	$PM_{2.5}$
Area	<1	9	<1	<1
Energy (Natural Gas)	2	1	<1	<1
Stationary	<1	2	<1	<1
On-Site Total	**2**	**12**	**<1**	**<1**
SCAQMD Significance Threshold[b]	**42**	**1,209**	**3**	**2**
Over/(Under)	**(40)**	**(1,197)**	**(3)**	**(2)**
Exceed Threshold?	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

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

[b] *Potential localized construction impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The closest sensitive receptor is comprised of residential uses adjacent to south of the Project Site. The localized threshold is based on a 25 meter receptor distance which is the closest receptor distance on the SCAQMD mass rate LST look-up table.*

Source: Eyestone Environmental, 2018.

At Project buildout, the highest average daily trips at an intersection would be approximately 80,000 at the Figueroa/3rd Street and SR-110 Ramps intersection, which is substantially below the daily traffic volumes that would be expected to generate CO exceedances, as evaluated in the 2003 AQMP.[52,53] 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 Figueroa/3rd Street and SR-110 Ramps intersection would exceed the 1-hour CO standard if modeled in detail, based on the studies undertaken for the 2003 AQMP.[54] **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. As a result, the Project would not expose sensitive receptors to substantial pollutant concentrations related to localized**

[52] *Linscott, Law & Greenspan, Traffic Impact Study—222 West 2nd Project, December 20, 2018. See Appendix L.*

[53] *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.*

[54] *It should be noted that CO background concentrations within the vicinity of the modeled intersection have substantially decreased since preparation of the 2003 AQMP. In 2003, the 1-hour background CO concentration was 5 ppm and has decreased to 2 ppm in 2014.*

mobile-source CO emissions, and impacts would be less than significant. The supporting data for this analysis is included in Appendix B of this Draft EIR.

(e) Toxic Air Contaminants—Operations

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).[55] The SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.[56] Together, the CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources and the addition of new TAC sources in proximity to existing sensitive land uses.

The primary sources of potential air toxics associated with Project operations include DPM from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets) and to a lesser extent facility operations (e.g., natural gas fired boilers). However, these activities, and the land uses associated with the Project, are not considered land uses that generate substantial TAC emissions. It should be noted that the SCAQMD recommends that health risk assessments (HRAs) be conducted for substantial individual sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.[57] Based on this guidance, the Project would not include these types of land uses and is not considered to be a substantial source of DPM warranting a refined HRA since daily truck trips to the Project Site would not exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. In addition, the CARB-mandated ATCM limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than 5 minutes at any given time, which would further limit diesel particulate emissions.

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

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

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

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

of off-site sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.

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 California Accidental Release Program. **As such, the Project would not release substantial amounts of TACs that would expose sensitive receptors to substantial pollutant concentrations, and impacts on human health would be less than significant.**

Threshold (e): Would the Project create objectionable odors affecting a substantial number of people?

As discussed in Section VI, Other CEQA Considerations, and in the Initial Study (Appendix A of this Draft EIR), no objectionable odors are anticipated as a result of either construction or operation of the Project. **Thus, the Project would have a less-than-significant impact with respect to creating objectionable odors.**

4. Cumulative Impacts

As identified in Section III, Environmental Setting, of this Draft EIR, a total of 173 related projects are located in the vicinity of the Project Site. Much of this growth is anticipated by the City and will be incorporated into the Central City Community Plan update, known as the DTLA 2040 Plan, which the Department of City Planning is in the process of preparing (refer to Section IV.F, Land Use, of this Draft EIR for further discussion). According to the DTLA 2040 projections, an additional approximately 125,000 people, 70,000 housing units, and 55,000 jobs will be added to the Downtown area by the year 2040.[58] A map of the related project locations is provided in Figure III-1 in Section III, Environmental Setting, of this Draft EIR.

[58] *Growth projections current as of December 2018. Source: City of Los Angeles, DTLA 2040, About This Project, www.dtla2040.org/, accessed December 6, 2018.*

a. Construction

As discussed 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 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 shown above, construction-related daily emissions at the Project Site would not exceed any of the SCAQMD's regional or localized significance thresholds. 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, the SCAQMD CEQA guidance does not require a health risk assessment for short-term construction emissions. It is therefore not 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 and cumulative impacts would be less than significant. According to the SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then the project would also result in a cumulatively considerable net increase of these criteria pollutants. **As operational emissions would not exceed any of the SCAQMD's regional or localized significance thresholds, the emissions of non-attainment pollutants and precursors generated by Project operations would not be cumulatively considerable.**

With respect to TAC emissions, neither the Project nor any of the 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 the CARB to identify substances as TACs and adopt airborne toxic control measures to control such substances, the 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.**

5. Mitigation Measures

a. Construction

Project-level and cumulative construction-related impacts with regard to air quality would be less than significant. Therefore, no mitigation measures are required.

b. Operations

Project-level and cumulative operational impacts with regard to air quality would be less than significant. Therefore, no mitigation measures are required.

6. Level of Significance After Mitigation

a. Construction

As shown in Table IV.B-3 on page IV.B-43 and in Table IV.B-5 on page IV.B-47, regional and localized emissions resulting from construction of the Project would not exceed the SCAQMD daily thresholds. Therefore, the Project-level and cumulative regional and localized air quality impacts associated with Project construction would be less than significant. No mitigation measures are required.

No notable impacts related to TAC emissions during construction are anticipated to occur as a result of the Project. As such, Project-level and cumulative TAC impacts would be less than significant, and no mitigation measures are required.

b. Operations

As shown in Table IV.B-4 on page IV.B-44, regional emissions resulting from Project operations would not exceed the SCAQMD daily thresholds. Therefore, the Project-level and cumulative regional air quality impact from Project operational emissions would be less than significant, and no mitigation measures are required.

Operation of the Project would not introduce any major new on-site or off-site sources of air pollution. Emissions estimates for criteria air pollutants from on-site activities are presented in Table IV.B-6 on page IV.B-48, and localized Project-level and cumulative operational emissions would be well below the significance thresholds. As such, no mitigation measures are required.

As discussed above, the Project would not result in a new long-term source of TACs. The Project would be consistent with CARB siting guidelines, and the Project is not considered to be a substantial source of diesel particulate matter. Potential air toxic impacts to sensitive receptors from Project TAC emissions would therefore be less than significant, and no mitigation measures are required.

Project development would be consistent with the air quality policies set forth in the SCAQMD's AQMP and the City of Los Angeles General Plan Air Quality Element, resulting in a less-than-significant impact. No mitigation measures are required.