

IV. Environmental Impact Analysis

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A. Air Quality

1. Introduction

This section evaluates the Project's potential impacts on air quality. This section estimates the air pollutant emissions generated by demolition of the existing building and whether Project emissions would conflict with or obstruct implementation of the applicable air quality plan; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations; or result in other emissions, such as those leading to odors, affecting a substantial number of people. 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

(1) Air Quality and Public Health

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 an overall endeavor to prevent further deterioration and to facilitate improvement in air quality. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety, and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.¹ As the scientific methods for the study of air pollution health effects have progressed over the past decades, adverse effects have been shown to occur at lower levels of exposure. For some pollutants, no clear thresholds for effects have been demonstrated. New findings over time have, in turn, led to the revision and lowering of NAAQS which, in the judgment of the U.S. Environmental Protection Agency (USEPA), are

¹ USEPA, NAAQS Table, www.epa.gov/criteria-air-pollutants/naaqs-table, accessed January 10, 2022.

necessary to protect public health. Ongoing assessments of the scientific evidence from health studies continue to be an important part of setting and informing revisions to federal and state air quality standards.² The NAAQS and CAAQS are listed in Table IV.A-1 on page IV.A-3.

At the regional level, the South Coast Air Quality Management District (SCAQMD) is the regulatory agency responsible for improving air quality for large areas of Los Angeles, Orange County, Riverside and San Bernardino Counties, including the Coachella Valley.³ The City of Los Angeles is located within the South Coast Air Basin (Air Basin) which is a distinct geographic subarea within the SCAQMD's jurisdiction. SCAQMD, together with the Southern California Association of Governments (SCAG), has the responsibility for ensuring that national and State ambient air quality standards are achieved and maintained for the Air Basin. Failure to comply with these standards puts State and local agencies at risk for penalties in the form of lawsuits, fines, a federal takeover of state implementation plans, and a loss of funds from federal agencies such as the Federal Highway Administration and Federal Transit Administration.

To meet the air quality standards, regional plans are developed, including SCAQMD's Air Quality Management Plan (AQMP), which incorporates regional demographic projections and integrated regional land use and transportation strategies from SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). These plans work together to examine multiple pollutants, cumulative effects, and transport issues related to attaining healthful air quality in the region. In addition, a host of regulatory standards at the federal, State, regional, and local level function to identify and limit exposure of air pollutants and toxic air contaminants (TACs).

(2) Local Air Quality and Air Pollution Sources

As mentioned above, the City of Los Angeles is located within the South Coast Air Basin, which is 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

² SCAQMD, *Final 2016 AQMP, 2017, Appendix I, Health Effects, p I-69.*

³ SCAQMD, *Map of Jurisdiction, 1999.*

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

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

ppm = parts per million by volume
µg/m³ = micrograms per cubic meter

^a *An ambient air quality standard is a concentration level expressed in either ppm or µg/m³ 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*

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

Pollutant	Averaging Period	Federal Standard ^{a,b}	California Standard ^{a,b}	South Coast Air Basin Attainment Status ^c	
				Federal Standard ^d	California Standard ^d
<p><i>concentration that is not to be exceeded. Others are expressed as a concentration that is not to be equaled or exceeded.</i></p> <p>^b <i>Ambient Air Quality Standards based on the 2016 AQMP.</i></p> <p>^c <i>“Attainment” means that the regulatory agency has determined based on established criteria, that the Air Basin meets the identified standard. “Non-attainment” means that the regulatory agency has determined that the Air Basin does not meet the standard. “Unclassified” means there is insufficient data to designate an area, or designations have yet to be made.</i></p> <p>^d <i>California and Federal standard attainment status based on SCAQMD’s 2016 AQMP and 2018 updates from CARB, ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.</i></p> <p>^e <i>An attainment re-designation request is pending.</i></p> <p><i>Source: USEPA, NAAQS Table, www.epa.gov/criteria-air-pollutants/naaqs-table, accessed January 10, 2022; CARB, Ambient Air Quality Standards May 4, 2016.</i></p>					

of emissions sources, such as dense population centers, heavy vehicular traffic, and industry.

The Air Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid to late afternoons on hot summer days. Winter inversions frequently break by midmorning.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problem is the accumulation of carbon monoxide (CO) and nitrogen oxides (NO_x) due to low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_x to form photochemical smog.

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.

(3) Air Pollutant Types

(a) *Criteria Pollutants*

The six principal pollutants for which national and State criteria and standards have been promulgated, known as “criteria pollutants”, and which are most relevant to current air quality planning and regulation in the Air Basin include ozone (O₃), respirable and fine particulate matter (PM₁₀ and PM_{2.5}, respectively), CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb). These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, which have been adopted for them.

(i) *Ozone (O₃)*

O₃ is a gas that is formed when volatile organic compounds (VOCs) and NO_x—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. O₃ concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of O₃ irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

(ii) *Particulate Matter (PM₁₀ and PM_{2.5})*

Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Respirable and fine particulate matter, PM₁₀ and PM_{2.5}, consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, such as pollen and windstorms, are naturally occurring. However, in areas such as the City of Los Angeles,

most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. The human body naturally prevents the entry of larger particles into the body. However, small particles 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 PM₁₀ 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.

(iii) Carbon Monoxide (CO)

CO is a colorless, odorless gas primarily emitted from combustion processes and motor vehicles due to incomplete combustion of carbon-containing fuels, such as gasoline or wood. In urban areas, such as the City of Los Angeles, automobile exhaust accounts for the majority of CO emissions. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike O₃, motor vehicles operating at slow speeds are the primary source of CO in the Air Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. 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.

(iv) Nitrogen Dioxide (NO₂)

NO₂ is a nitrogen oxide compound that is produced by the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered), as well as point sources, especially power plants. Of the seven types of NO_x compounds, NO₂ is the most abundant in the atmosphere. As ambient concentrations of NO₂ are related to traffic density, commuters in heavy traffic areas, particularly in urban areas such as the City of Los Angeles, may be exposed to higher concentrations of NO₂ than those indicated by regional monitors. NO₂ absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO₂ also contributes to the formation of PM₁₀. NO_x irritate the nose and throat, and increase one's susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO_x is as a precursor to the formation of O₃.

(v) Sulfur Dioxide (SO₂)

Sulfur oxides (SO_x) are compounds of sulfur and oxygen molecules. SO₂ 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 SO₂ include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Generally, the highest levels of SO₂ are found near large industrial complexes. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. Emissions of SO₂ aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO₂ potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of SO₂, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

(vi) Lead (Pb)

Pb is a metal found naturally in the environment as well as in manufactured products. The highest levels of Pb in air are usually found near Pb smelters. The major sources of Pb emissions to the air are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Pb is also emitted from the sanding or removal of old lead-based paint (LBP). Pb emissions are primarily a regional pollutant. Pb affects the brain and other parts of the body's nervous system. Exposure to Pb in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

(b) Additional Criteria Pollutants (California Only)

In addition to the national standards, the State of California regulates State-identified criteria pollutants, including sulfates (SO₄²⁻), hydrogen sulfide (H₂S), visibility-reducing particles, and vinyl chloride. With respect to the State-identified criteria pollutants, most land use development projects either do not emit them (i.e., H₂S [nuisance odor] and vinyl chloride), or otherwise account for these pollutants (i.e., SO₄²⁻ and visibility reducing particles) through other criteria pollutants. For example, SO₄²⁻ are associated with SO_x emissions, and visibility-reducing particles are associated with particulate matter emissions. A description of the health effects of the State-identified criteria air pollutants is provided below.

(i) Sulfates (SO₄²⁻)

SO₄²⁻ are the fully oxidized ionic form of sulfur. SO₄²⁻ 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 SO_4^2 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. SO_4^2 are particularly effective in degrading visibility, and, due to the fact that they are usually acidic, can harm ecosystems and damage materials and property.

(ii) Hydrogen Sulfide (H_2S)

H_2S is a colorless gas with the odor of rotten eggs. The most common sources of H_2S emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. Industrial sources of H_2S include petrochemical plants and kraft paper mills. H_2S is also formed during bacterial decomposition of human and animal wastes, and is present in emissions from sewage treatment facilities and landfills.⁴ Exposure to H_2S can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting; additional health effects of eye irritation have only been reported with exposures greater than 50 parts per million (ppm), which is considerably higher than the odor threshold.⁵ H_2S is regulated as a nuisance based on its odor detection level; if the standard were based on adverse health effects, it would be set at a much higher level.⁶

(iii) Visibility-Reducing Particles

Visibility-reducing particles come from a variety of natural and manmade sources and can vary greatly in shape, size and chemical composition. Visibility reduction is caused by the absorption and scattering of light by the particles in the atmosphere before it reaches the observer. Certain visibility-reducing particles are directly emitted to the air, such as windblown dust and soot, while others are formed in the atmosphere through chemical transformations of gaseous pollutants (e.g., SO_4^2 , nitrates, organic carbon particles) which are the major constituents of particulate matter. As the number of visibility-reducing particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range.⁷ Exposure to some haze-causing pollutants have been linked to adverse health impacts similar to PM_{10} and $\text{PM}_{2.5}$, as discussed above.⁸

⁴ CARB, *Hydrogen Sulfide & Health*, ww2.arb.ca.gov/resources/hydrogen-sulfide-and-health, accessed January 10, 2022.

⁵ CARB, *Hydrogen Sulfide & Health*, 2019.

⁶ CARB, *Hydrogen Sulfide & Health*, 2019.

⁷ CARB, *Visibility-Reducing Particles and Health*, ww2.arb.ca.gov/resources/visibility-reducing-particles-and-health, accessed January 10, 2022.

⁸ CARB, *Visibility-Reducing Particles and Health*, ww2.arb.ca.gov/resources/visibility-reducing-particles-and-health, accessed January 10, 2022.

(iv) *Vinyl Chloride*

Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products and is generally emitted from industrial processes. Other major sources of vinyl chloride have been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.⁹ Short-term health effects of exposure to high levels of vinyl chloride in the air include central nervous system effects, such as dizziness, drowsiness, and headaches while long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage and has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans.¹⁰ Most health data on vinyl chloride relate to carcinogenicity; thus, the people most at risk are those who have long-term exposure to elevated levels, which is more likely to occur in occupational or industrial settings; however, control methodologies applied to industrial facilities generally prevent emissions to the ambient air.¹¹

(c) *Volatile Organic Compounds (VOCs) and Toxic Air Contaminants (TACs)*

Although SCAQMD's primary mandate is attaining the NAAQS and the CAAQS for criteria pollutants within the district, SCAQMD also has a general responsibility to control emissions of air contaminants and prevent endangerment to public health. As a result, SCAQMD has regulated pollutants other than criteria pollutants such as VOCs, TACs, greenhouse gases (GHGs), and stratospheric O₃-depleting compounds.

(i) *VOCs*

VOCs are organic chemical compounds of carbon and are not "criteria" pollutants themselves; however, VOCs are a prime component (along with NO_x) of the photochemical processes by which such criteria pollutants as O₃, NO₂, and certain fine particles are formed. They are therefore regulated as "precursors" to formation of these criteria pollutants. Some are also identified as TACs and have adverse health effects. VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids, internal combustion associated with motor vehicle usage, and consumer products (e.g., architectural coatings, etc.).

⁹ CARB, *Vinyl Chloride & Health*, ww2.arb.ca.gov/resources/vinyl-chloride-and-health, accessed January 10, 2022.

¹⁰ CARB, *Vinyl Chloride & Health*.

¹¹ CARB, *Vinyl Chloride & Health*.

(ii) *Toxic Air Contaminants (TACs)*

TACs is a term used to describe airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health, and include both carcinogens and non-carcinogens. The California Air Resources Board (CARB) and the California Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or “listed,” as a TAC in California. CARB has listed approximately 200 toxic substances, including those identified by the USEPA, which are identified on the California Air Toxics Program’s TAC List. TACs are also not classified as “criteria” air pollutants. The greatest potential for TAC emissions during construction is related to diesel particulate matter (DPM) emissions associated with heavy-duty equipment. During long-term operations, sources of DPM may include heavy duty diesel-fueled delivery trucks and stationary emergency generators. The effects of TACs can be diverse and their health impacts tend to be local rather than regional; consequently ambient air quality standards for these pollutants have not been established, and analysis of health effects is instead based on cancer risk and exposure levels.

b. Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding Air Quality at the federal, state, regional, and local levels. As described below, these plans, guidelines, and laws include the following:

- Federal Clean Air Act
 - National Ambient Air Quality Standards
- California Clean Air Act
 - California Ambient Air Quality Standards
- California Code of Regulations
- State Programs for Toxic Air Contaminants
- Diesel Risk Reduction Program
- South Coast Air Quality Management District
 - Air Quality Management Plan and Regional Transportation Plan/Sustainable Communities Strategy
 - Air Quality Guidance Documents

– Rules and Regulations

- City of Los Angeles Air Quality Element
- City of Los Angeles Plan for a Healthy LA

(1) Federal

(a) *Federal Clean Air Act*

The Federal Clean Air Act (CAA) was enacted in 1970 and has been amended numerous times in subsequent years, with the latest amendments occurring in 1990.¹² The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare.¹³ The USEPA is responsible for the implementation and enforcement of the CAA, which establishes NAAQS, specifies future dates for achieving compliance, and requires the USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to land use development projects include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).¹⁴

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. Table IV.A-1 on page IV.A-3, shows the NAAQS currently in effect for each criteria pollutant. The Air Basin fails to meet national standards for O₃ and PM_{2.5} and, therefore, is considered a federal “non-attainment” area for these pollutants.

Title II pertains to mobile sources, which includes on-road vehicles (e.g. cars, buses, motorcycles) and non-road vehicles (e.g. aircraft, trains, construction equipment). 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.

¹² 42 United States Code Section 7401 et seq. (1970).

¹³ USEPA, *Clean Air Act, 1963*.

¹⁴ USEPA, *Clean Air Act Overview, Clean Air Act Table of Contents by Title*, www.epa.gov/clean-air-act-overview/clean-air-act-text, accessed January 10, 2022.

The NAAQS, and the CAAQS for the California criteria air pollutants (discussed below), have been set at levels considered safe to protect public health, including the health of sensitive populations and to protect public welfare.

(2) State

(a) California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the 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 the CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. Table IV.A-1 on page IV.A-3 includes the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the state. As shown in Table IV.A-1, the CAAQS include more stringent standards than the NAAQS. The Air Basin fails to meet State standards for O₃, PM₁₀, and PM_{2.5}, and, therefore, is considered “non-attainment” for these pollutants.

(b) California Code of Regulations

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

(c) State Programs for Toxic Air Contaminants

The California Air Toxics Program is an established two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or “listed,” as a TAC in California. 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 stationary and mobile sources, including On-Road and Off-Road Vehicle Rules. These

ATCMs include measures such as limits on heavy-duty diesel motor vehicle idling and emission standards for off-road diesel construction equipment in order to reduce public exposure to DPM and other TACs. These actions are also supplemented by the Assembly Bill (AB) 2588 Air Toxics “Hot Spots” program and Senate Bill (SB) 1731, which require facilities to report their air toxics emissions, assess health risks, notify nearby residents and workers of significant risks if present, and reduce their risk through implementation of a risk management plan. SCAQMD has further adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

(d) Diesel Risk Reduction Program

CARB identified particulate emissions from diesel-fueled engines as TACs in August 1998. Following the identification process, CARB was required by law to determine if there is a need for further control, which moved us into the risk management phase of the program. CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines* and the *Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*. The Diesel Advisory Committee approved these documents on September 28, 2000, paving the way for the next step in the regulatory process: the control measure phase. During the control measure phase, specific statewide regulations designed to further reduce DPM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce DPM emissions.

(3) Regional

(a) South Coast Air Quality Management District

SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the Air Basin. The Air Basin is a subregion within the western portion of the SCAQMD jurisdiction, as SCAQMD also regulates portions of the Salton Sea Air Basin and Mojave Desert Air Basin within Riverside County.

*(i) Air Quality Management Plan and Regional Transportation Plan/
Sustainable Communities Strategy*

To meet the NAAQS and CAAQS, SCAQMD has adopted a series of AQMPs, which serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The 2016 AQMP

includes strategies to ensure that rapidly approaching attainment deadlines for O₃ and PM_{2.5} are met and that public health is protected to the maximum extent feasible. The most significant air quality challenge in the Air Basin is to reduce NO_x emissions¹⁵ sufficiently to meet the upcoming O₃ standard deadlines, as NO_x plays a critical role in the creation of O₃. The AQMP's strategy to meet the 8-hour O₃ standard in 2023 should lead to sufficient NO_x emission reductions to attain the 1-hour O₃ standard by 2022. Since NO_x emissions also lead to the formation of PM_{2.5}, the NO_x reductions needed to meet the O₃ standards will likewise lead to improvement of PM_{2.5} levels and attainment of PM_{2.5} standards.^{16,17}

SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, State and local levels and industries. The 2016 AQMP is composed of stationary and mobile source emission reductions from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources, which include aircraft, locomotives and ocean-going vessels. These strategies are to be implemented in partnership with the CARB and USEPA.

The AQMP also incorporates the transportation strategy and transportation control measures from SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Plan.¹⁸ 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. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. 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. The RTP/SCS includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The SCAQMD combines its

¹⁵ NO_x emissions are a precursor to the formation of both O₃ and secondary PM_{2.5}.

¹⁶ Estimates are based on the inventory and modeling results and are relative to the baseline emission levels for each attainment year (see Final 2016 AQMP for detailed discussion).

¹⁷ SCAQMD, *Final 2016 AQMP, 2017*, p. ES-2, www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp, accessed January 10, 2022.

¹⁸ SCAG, *Final 2016 RTP/SCP, 2016*.

portion of the AQMP with those prepared by SCAG.¹⁹ The RTP/SCS and Transportation Control Measures, included as Appendix IV-C of the 2016 AQMP, are based on SCAG's 2016–2040 RTP/SCS.

The 2016 AQMP forecasts the 2031 emissions inventories “with growth” based on SCAG's 2016–2040 RTP/SCS. The region is projected to see a 12-percent growth in population, 16-percent growth in housing units, 23-percent growth in employment, and 8-percent growth in VMT between 2012 and 2031. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, State and federal levels.²⁰

On September 3, 2020, SCAG's Regional Council adopted the 2020–2045 RTP/SCS. The 2020–2045 RTP/SCS was determined to conform to the federally mandated state implementation plan (SIP), for the attainment and maintenance of NAAQS standards. On October 30, 2020, CARB also accepted SCAG's determination that the SCS met the applicable future State GHG reduction targets of 19 percent. The 2020–2045 RTP/SCS will be incorporated into the forthcoming 2022 AQMP.

(ii) SCAQMD Air Quality Guidance Documents

SCAQMD published the *CEQA Air Quality Handbook* (approved by the SCAQMD's Governing Board in 1993) to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts.²¹ The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses. However, SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, SCAQMD has provided supplemental guidance on the SCAQMD website.²²

SCAQMD has also adopted land use planning guidelines in its *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.²³ SCAQMD's siting

¹⁹ SCAQMD, *Final 2016 AQMP*, 2017, p. ES-2, www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp, accessed January 10, 2022.

²⁰ SCAQMD, *Final 2016 AQMP*, Figure 1-4.

²¹ SCAQMD, *CEQA Air Quality Handbook 1993*, [www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)), accessed January 10, 2022.

²² SCAQMD, *Air Quality Analysis Guidance*, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook#, accessed January 10, 2022.

²³ SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, 2005.

distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* for CEQA evaluations that is intended to provide guidance when evaluating the localized effects from mass emissions during construction or operation of a project.²⁴ SCAQMD adopted additional guidance regarding PM_{2.5} emissions in a document called *Final Methodology to Calculate Particulate Matter (PM)_{2.5} and PM_{2.5} Significance Thresholds*.²⁵ The latter document has been incorporated by SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

(iii) SCAQMD Rules and Regulations

SCAQMD has adopted several rules and regulations to regulate sources of air pollution in the Air Basin and to help achieve air quality standards for land use development projects, which include, but are not limited to the following:

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

- **Rule 401—Visible Emissions:** This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.
- **Rule 402—Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose,

²⁴ SCAQMD, *Final Localized Significance Threshold Methodology*, June 2003 (Revised July 2008).

²⁵ SCAQMD, *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM_{2.5} Significance Thresholds*, 2006.

health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

- **Rule 403—Fugitive Dust:** This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Best available control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.

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

- **Rule 1113—Architectural Coatings:** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- **Rule 1138—Control of Emissions from Restaurant Operations:** This rule specifies PM and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.
- **Rule 1146.2—Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters:** This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

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

- **Rule 316**—The purpose of Rule 316 (PR 316) is to act as a companion rule to Rule 2305 (PR 2305)—Warehouse Indirect Source Rule—Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program. PR 2305 requires reporting information about facility operations and recordkeeping. PR 316 establishes the administrative fees that PR 2305 warehouse operators and owners must pay in order to recover SCAQMD administrative costs associated with ensuring compliance with PR 2305 (see also Rule 2305).

Regulation XIV—Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants or other non-criteria pollutants. The following is a list of rules which may apply to the Project:

- **Rule 1403—Asbestos Emissions from Demolition/Renovation Activities:** This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.
- **Rule 1470—Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines:** This rule applies to stationary compression ignition (CI) engines greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.
- **Rule 2305—Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program:** This rule requires warehouses greater than 100,000 square feet to directly reduce NO_x and diesel PM, or to facilitate emission and exposure reductions of these pollutants. The WAIRE Program is a menu-based points system that will require warehouse operators to annually earn a specified number of points by completing actions from a menu. Menu items include acquiring or using: Near Zero Emissions (NZE) and/or Zero Emissions (ZE) on-road trucks, ZE cargo handling equipment, ZE charging/fueling infrastructure, solar panels, or particulate filters for nearby sensitive land uses. Alternatively, warehouse operators could prepare and implement a custom plan specific to their site, or they could pay a mitigation fee. Funds from the mitigation fee would be used through future solicitations and Board actions to incentivize the purchase of NZE or ZE trucks and ZE charging/fueling infrastructure in the communities near warehouses that paid the fee. Warehouse owners and operators would also have reporting and recordkeeping requirements..

(4) Local

(a) City of Los Angeles General Plan

(i) Air Quality Element

Local jurisdictions, such as the City, have the authority and responsibility to reduce air pollution through their land use decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. In general, the City of Los Angeles' General Plan (including the Framework, Air Quality, Transportation [the Mobility Plan], and Health and Wellness Elements) and the L.A.'s Green New Deal (Sustainability pLAN 2019) contain policies and programs for the protection of the environment and health through improved air quality. These serve to provide additional critical guidance for the betterment of public health for the region and City.

The most directly-related of those plans, the Air Quality Element, was adopted on November 24, 1992, and sets forth the goals, objectives, and policies which guide the City in its implementation of its air quality improvement programs and strategies. A number of these goals, objectives, and policies are relevant to land use development, and relate to traffic mobility, minimizing particulate emissions from construction activities, discouraging single-occupancy vehicle trips, managing traffic congestion during peak hours, and increasing energy efficiency in City facilities and private developments.

The 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.

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

(ii) Plan for a Healthy Los Angeles

The Plan for a Healthy Los Angeles, adopted by the City Council on March 31, 2015, lays the foundation to create healthier communities for all residents in the City. As an element of the General Plan, it provides high-level policy vision, along with measurable objectives and implementation programs, to elevate health as a priority for the City's future growth and development. With a focus on public health and safety, the Plan for a Healthy Los Angeles provides a roadmap for addressing the most basic and essential quality-of-life issues: safe neighborhoods, a clean environment (i.e., improved ambient and indoor air quality), the opportunity to thrive, and access to health services, affordable housing, and healthy and sustainably produced food.

c. Existing Conditions

(1) Regional Air Quality

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

The greatest air pollution throughout the Air Basin occurs from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in

the Air Basin vary with location, season, and time of day. O₃ 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 O₃ and PM_{2.5} and, therefore is considered a federal non-attainment area for these pollutants. In addition, Los Angeles County still fails to meet the national standard for lead and, therefore, is considered a federal non-attainment area for lead.

SCAQMD has released an Air Basin-wide air toxics study (MATES-IV).²⁶ The MATES-IV study was aimed at estimating the cancer risk from toxic air emissions throughout the Air Basin by conducting a comprehensive monitoring program, an updated emissions inventory of TACs, and a modeling effort to fully characterize health risks for those living in the Air Basin. The MATES-IV study concluded that the average carcinogenic risk from air pollution in the Air Basin is approximately 897 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, SCAQMD prepared a series of maps that shows regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps' estimates represent the number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years) in parts of the area. The MATES-IV map is the most recently available map to represent existing conditions near the Project area. The estimated cancer risk for the vast majority of the urbanized area within the Air Basin ranges from 200 to over 1,200 cancers per million over a 70-year duration.²⁷ Generally, the risk from air toxics is lower near the coastline and higher risks are concentrated near large diesel sources (e.g., freeways, airports, and ports).

²⁶ SCAQMD, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV) Final Report*, May 2015.

²⁷ SCAQMD, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV), MATES IV Interactive Carcinogenicity Map*, 2015.

(2) Local Air Quality

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

(a) Existing Pollutant Levels at Nearby Monitoring Stations

SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin and has divided the Air Basin into 38 source receptor areas (SRAs) in which 38 monitoring stations operate. Figure IV.A-1 on page IV.A-23 shows the locations of the SRAs located in Los Angeles County. The Project Site is located within SRA 1, which covers the Central Los Angeles area. The monitoring station most representative of the Project Site is the North Main Street Station, located at 1630 North Main Street in the City of Los Angeles, approximately 6 miles southeast of the Project Site. Criteria pollutants monitored at this station include PM₁₀, PM_{2.5}, O₃, CO, NO₂, lead, and sulfate. Table IV.A-2 on page IV.A-24 identifies the national and state ambient air quality standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured at these stations through the period of 2017–2019.

(b) Existing Health Risk in the Surrounding Area

As shown in Figure IV.A-2 on page IV.A-26, based on the MATES-IV model, the calculated cancer risk in the Project area is approximately 1,150 in one million.²⁸ The cancer risk in this area is predominately related to nearby sources of diesel particulate (e.g., the US-101 freeway). In general, the risk at the Project Site is comparable with other urbanized areas in Los Angeles.

The OEHHA, on behalf of the CalEPA, provides a screening tool (CalEnviroScreen) that can be used to help identify California communities that are disproportionately burdened by multiple sources of pollution. According to CalEnviroScreen, the Project Site is located in the 96th to 100th percentile, which means that the Project Site is worse than average in terms of pollution in comparison to other communities within California.²⁹

²⁸ SCAQMD, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV)*, *MATES IV Interactive Carcinogenicity Map*, 2015.

²⁹ OEHHA, *CalEnviroScreen 3.0 MAP*, <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>, accessed July 13, 2021.

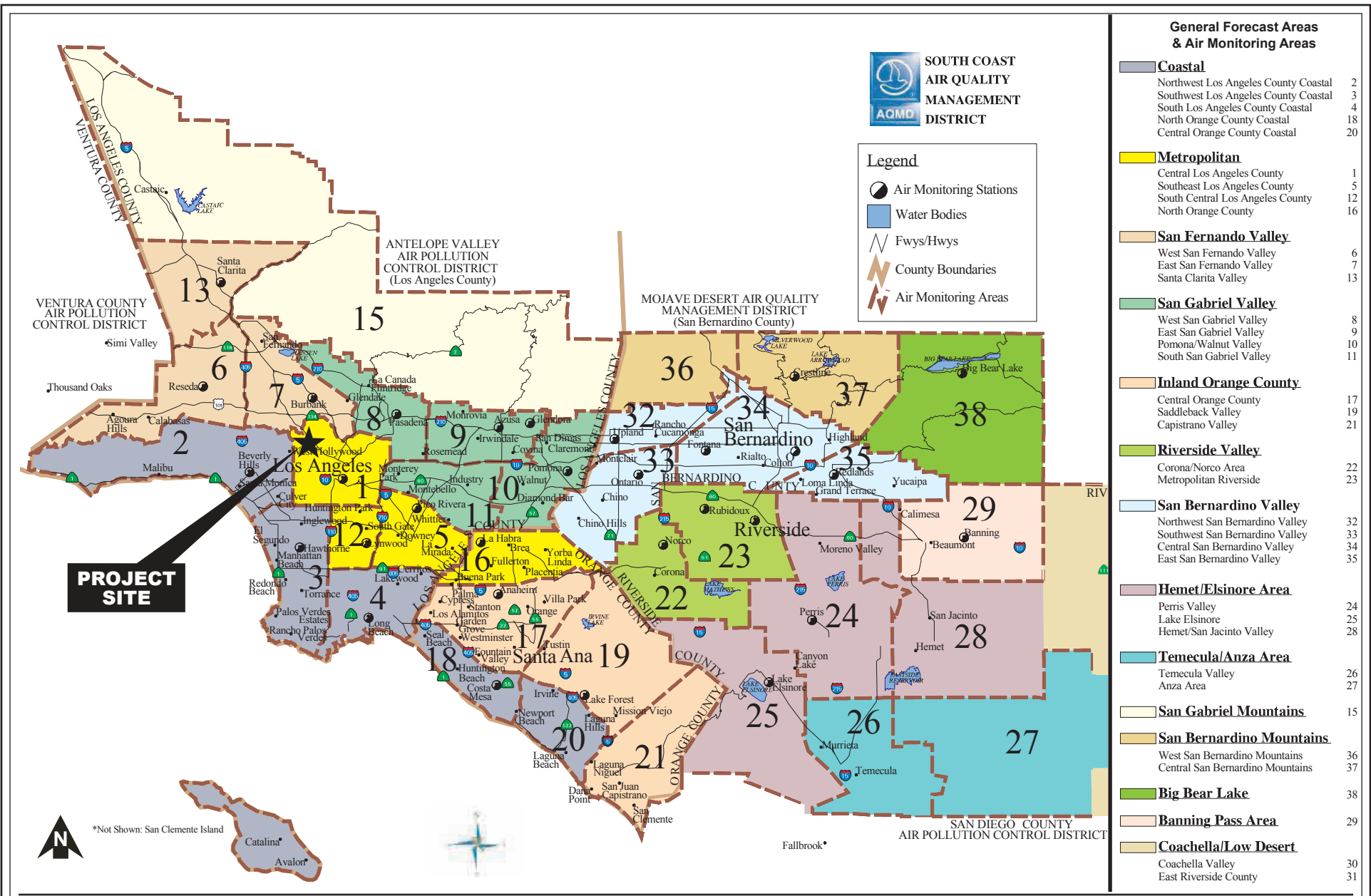


Figure IV.A-1
SCAQMD SRAs

Source: Sierra Wade Associates, 2010.

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

Pollutant	Year		
	2017	2018	2019
Ozone (O₃)			
Maximum 1-hour Concentration (ppm)	0.12	0.10	0.09
Days exceeding CAAQS (0.09 ppm)	6	2	0
Maximum 8-hour Concentration (ppm)	0.09	0.07	0.08
Days exceeding NAAQS (0.070 ppm)	14	4	2
Days exceeding CAAQS (0.07 ppm)	14	4	2
Respirable Particulate Matter (PM₁₀)			
Maximum 24-hour Concentration (µg/m ³)	96	81	62
Days exceeding NAAQS (150 µg/m ³)	0	0	0
Days exceeding CAAQS (50 µg/m ³)	41	31	3
Annual Arithmetic Mean (µg/m ³)	34	34	26
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)	49	44	44
Days exceeding NAAQS (35 µg/m ³)	5	3	1
Annual Arithmetic Mean (µg/m ³)	12	13	11
Does measured AAM exceed NAAQS (12 µg/m ³)?	No	Yes	No
Does measured AAM exceed CAAQS (12 µg/m ³)?	No	Yes	No
Carbon Monoxide (CO)			
Maximum 1-hour Concentration (ppm)	2	2	2
Days exceeding NAAQS (35.0 ppm)	0	0	0
Days exceeding CAAQS (20.0 ppm)	0	0	0
Maximum 8-hour Concentration (ppm)	1	2	2
Days exceeding NAAQS and CAAQS (9 ppm)	0	0	0
Nitrogen Dioxide (NO₂)			
Maximum 1-hour Concentration (ppm)	0.08	0.07	0.07
Days exceeding CAAQS (0.18 ppm)	0	0	0
Annual Arithmetic Mean (ppm)	0.02	0.02	0.02
Does measured AAM exceed NAAQS (0.0534 ppm)?	No	No	No
Does measured AAM exceed CAAQS (0.03 ppm)?	No	No	No
Sulfur Dioxide (SO₂)			
Maximum 1-hour Concentration (ppm)	0.01	0.02	0.01
Days exceeding CAAQS (0.25 ppm)	0	0	0
Maximum 24-hour concentration (ppm)	N/A	N/A	N/A
Days exceeding CAAQS (0.04 ppm)	0	0	0
Days exceeding NAAQS (0.14 ppm)	0	0	0
Annual Arithmetic Mean (ppm)	N/A	N/A	N/A
Does measured AAM exceed NAAQS (0.030 ppm)?	N/A	N/A	N/A

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

Pollutant	Year		
	2017	2018	2019
Lead			
Maximum 30-day Average Concentration ($\mu\text{g}/\text{m}^3$)	0.02	0.01	0.012
Does measured concentration exceed NAAQS ($1.5 \mu\text{g}/\text{m}^3$)	No	No	No
Maximum Calendar Quarter Concentration ($\mu\text{g}/\text{m}^3$)	0.01	0.01	0.01
Does measured concentration exceed CAAQS ($1.5 \mu\text{g}/\text{m}^3$)	No	No	No
Sulfate			
Maximum 24-hour Concentration ($\mu\text{g}/\text{m}^3$)	5	5	5.1
Does measured concentration exceed CAAQS ($25 \mu\text{g}/\text{m}^3$)	No	No	No
<hr/> <i>AAM = annual arithmetic mean</i> <i>ppm = parts per million by volume</i> <i>$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter</i> <i>Source: SCAQMD, Ambient Monitoring Data (2017–2019), www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year, accessed July 13, 2021.</i>			

SCAQMD developed a web tool which allows one to search for public information about SCAQMD-regulated facilities that are required to have a permit to operate equipment that release pollutants into the air.³⁰ 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 screening analysis, no substantial permitted stationary sources (e.g., gasoline stations, dry cleaners, chrome plating operations) of TAC emissions within the Project Site vicinity were identified.

(c) Surrounding Uses

As shown in Figure IV.A-3 on page IV.A-27, the Project Site is located in an urbanized area. Surrounding uses in the vicinity of the Project Site include commercial and residential uses, and the Sunset Vine tower to the north; the Arclight Cinemas—Hollywood to the northwest; multi-family residential uses to the east; the Southern California Hospital at Hollywood to the northeast; various entertainment commercial and single-family residential uses to the south; and the mixed-use Academy on Vine development under construction to the west. The Los Angeles County Metropolitan Transportation Authority

³⁰ SCAQMD, *Facility Information Detail (F.I.N.D.)*, www.aqmd.gov/nav/FIND, accessed July 13, 2021.

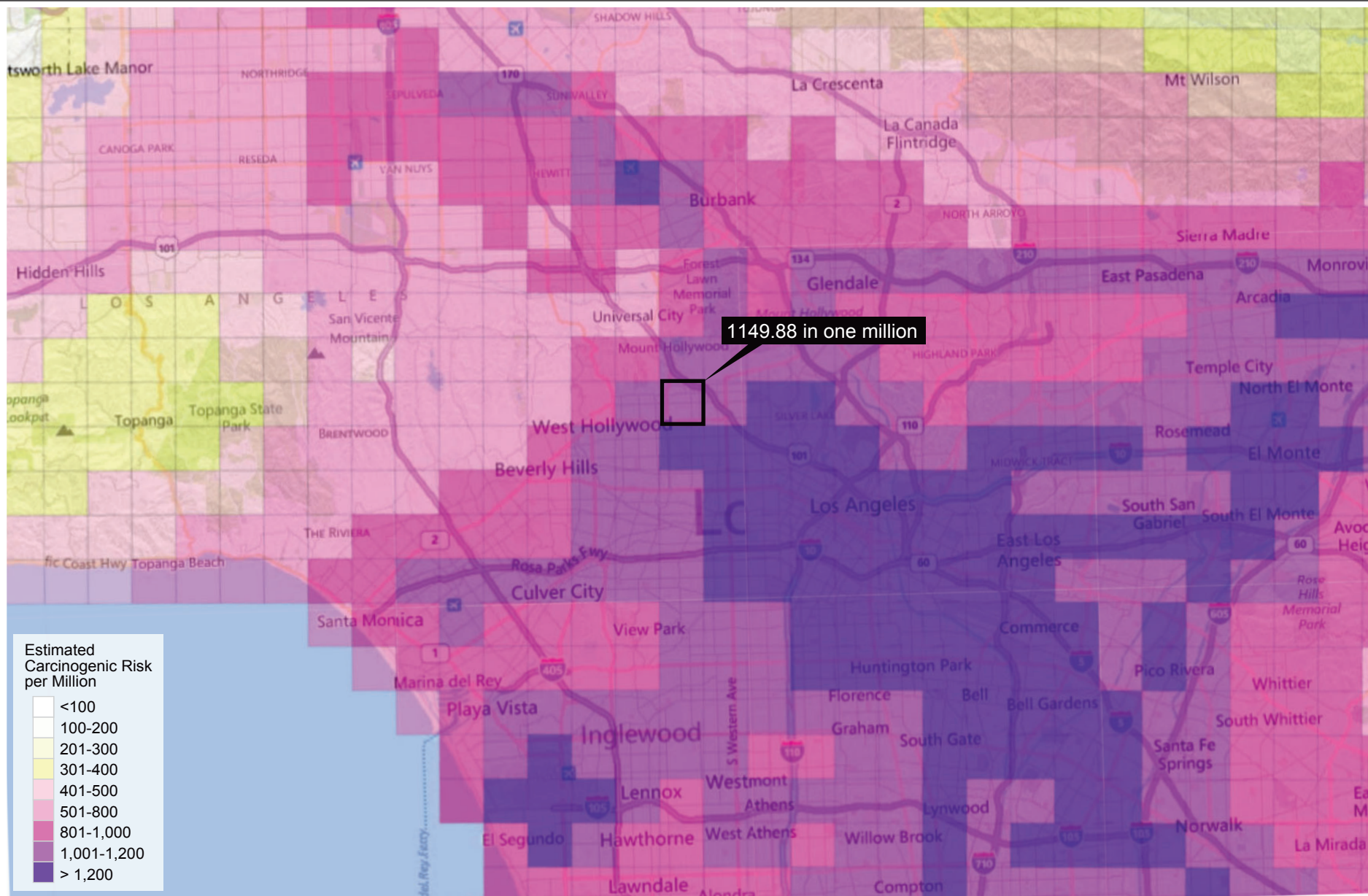


Figure IV.A-2
 MATES IV Total Cancer Risk for Project Area

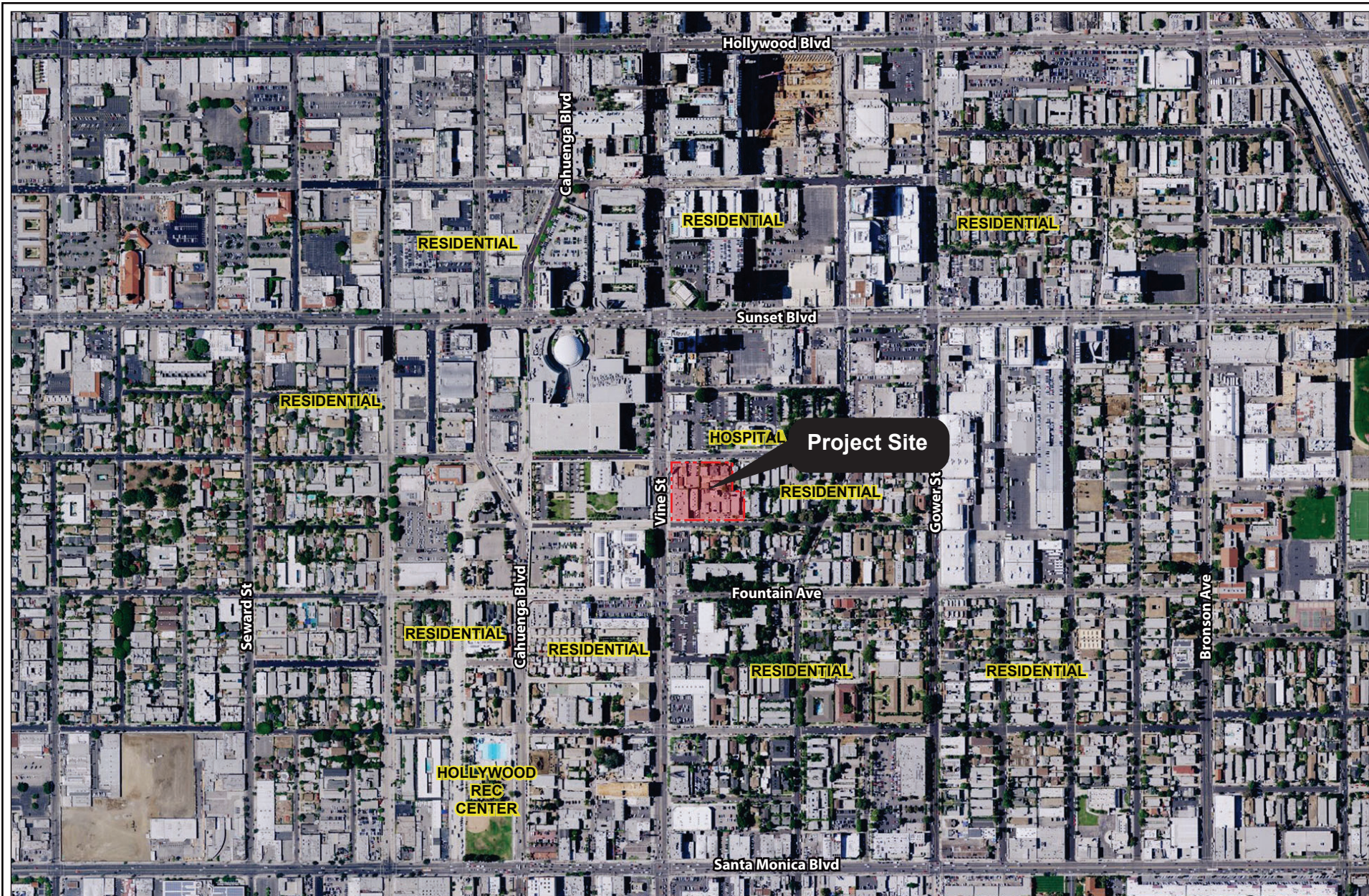


Figure IV.A-3
Air Quality Sensitive Receptor Locations

(Metro) B Line (Red) Hollywood/Vine Station is located approximately 0.4 mile north of the Project Site. Within the Project vicinity, major arterials such as Sunset Boulevard are generally developed with more dense residential and commercial development, while lower density mixed-use and residential areas are located along the adjacent collector streets.

(d) Sensitive Uses

Some population groups, including children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to air pollution than others. As shown in Figure IV.A-3 on page IV.A-27, the closest sensitive land uses to the Project Site are residential uses directly adjacent and east of the Project Site. As such, these residences would experience the highest levels of Project emissions. While there are other sensitive receptors in the Project vicinity, they are farther away than the residences immediately adjacent to the Project Site, and emission levels and impacts would be less.

(e) Existing Project Site Emissions

The Project Site is currently occupied by a mix of uses that consist of a 17,100-square-foot post-production facility, an 8,044-square-foot commercial building, three bungalows that comprise approximately 4,494 square feet of floor area, and a vacant eight-unit multi-family residential building comprising approximately 7,700 square feet of floor area. The three occupied existing bungalows were assumed to be residential for trip generation purposes, which yields a conservative net new trip generation for the Project as opposed to office use.³¹ The 8,044-square-foot commercial building includes two restaurants, a convenience store, a pawn shop, and an insurance services store. There are also ancillary buildings such as sheds and garages adjacent to the bungalows. A surface parking lot is also located behind the commercial building. Table IV.A-3 on page IV.A-29 presents an estimate of the existing emissions within the Project Site.

³¹ As discussed in Section II, Project Description, of this Draft EIR, the bungalows comprise approximately 8,988 square feet. Three of the six bungalows are occupied by office/post-production uses, while the three remaining bungalows are vacant. The vacant bungalows and multi-family residential units are not included as part of the existing site emissions.

**Table IV.A-3
Estimated Daily Regional Operational Criteria Pollutant Emissions—Baseline^a**

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	<1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	3	9	<1	2	<1
Total Existing Emissions^a	2	4	10	<1	2	<1

Numbers may not add up exactly due to rounding.

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

Source: Eyestone Environmental, 2020.

3. Project Impacts

a. Thresholds of Significance

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

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

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

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

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

(1) 2006 L.A. CEQA Thresholds Guide

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

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

(a) Construction

(i) Combustion Emissions from Construction Equipment

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

(ii) Fugitive Dust—Grading, Excavation and Hauling

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

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

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

(iv) Other Mobile Source Emissions

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

(b) Operation

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

Pollutant	Significance Threshold (lbs/day)
ROG	55
NO _x	55
CO	550
PM ₁₀	150
SO _x	150

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

(2) Toxic Air Contaminants

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

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

(3) SCAQMD's CEQA Air Quality Handbook

To assist in answering the Appendix G Threshold questions and factors identified in the City's *L.A. CEQA Thresholds Guide* for purposes of this analysis, the City of Los Angeles utilizes the thresholds of significance in SCAQMD's *CEQA Air Quality Handbook*, as identified below, to assess the significance of the Project's estimated air quality impacts. Table IV.A-4 on page IV.A-32 shows the currently recommended supplemental thresholds

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

Mass Daily Thresholds^a		
Pollutant	Construction^b	Operation^c
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs)		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Ambient Air Quality Standards for Criteria Pollutants		
NO₂ 1-hour average Annual Arithmetic Mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM₁₀ 24-hour average Annual Average	10.4 µg/m ³ (construction) & 2.5 µg/m ³ (operation) 1.0 µg/m ³	
PM_{2.5} 24-hour average	10.4 µg/m ³ (construction) & 2.5 µg/m ³ (operation)	
SO₂ 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal—99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 µg/m ³ (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day average Rolling 3-month average	1.5 µg/m ³ (state) 0.15 µg/m ³ (federal)	
<p><i>lbs/day = pounds per day</i></p> <p>^a SCAQMD CEQA Handbook (SCAQMD, 1993)</p> <p>^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).</p> <p>Source: SCAQMD, 2019.</p>		

by the SCAQMD in the *CEQA Air Quality Handbook*, which provide numerical thresholds for evaluating the significance of a project's estimated air quality emissions.

(a) Construction

Based on the criteria set forth in SCAQMD's *CEQA Air Quality Handbook*,³² the Project may have a significant impact with regard to construction emissions if any of the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the SCAQMD prescribed threshold levels identified in Table IV.A-4 on page IV.A-32.
- Maximum on-site daily localized emissions exceed the Localized Significance Thresholds (LST), resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 ppm [23,000 $\mu\text{g}/\text{m}^3$] over a 1-hour period or 9.0 ppm [10,350 $\mu\text{g}/\text{m}^3$] averaged over an 8-hour period) and NO₂ (0.18 ppm [338.4 $\mu\text{g}/\text{m}^3$] over a 1-hour period, 0.1 ppm [188 $\mu\text{g}/\text{m}^3$] over a three-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm [56.4 $\mu\text{g}/\text{m}^3$] averaged over an annual period).
- Maximum on-site localized PM₁₀ or PM_{2.5} emissions during construction exceed the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed the incremental 24-hr threshold of 10.4 $\mu\text{g}/\text{m}^3$ or 1.0 $\mu\text{g}/\text{m}^3$ PM₁₀ averaged over an annual period.

(b) Operation

Based on the criteria set forth in SCAQMD's *CEQA Air Quality Handbook*,³³ the Project may have a significant impact with regard to operational emissions if any of the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the SCAQMD prescribed threshold levels identified in Table IV.A-4 on page IV.A-32.
- Maximum on-site daily localized emissions exceed the LSTs, 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

³² SCAQMD, *CEQA Air Quality Handbook*, 1993.

³³ SCAQMD, *CEQA Air Quality Handbook*, 1993.

(ppm) over a 1-hour period or 9.0 ppm averaged over an 8-hour period) and NO₂ (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).³⁴

- Maximum on-site localized operational PM₁₀ and PM_{2.5} emissions exceed the incremental 24-hr threshold of 2.5 µg/m³ or 1.0 µg/m³ PM₁₀ averaged over an annual period.³⁵
- The Project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 ppm, respectively; or
- The Project creates an odor nuisance pursuant to SCAQMD Rule 402 (i.e., objectionable odor at the nearest sensitive receptor).

(c) Toxic Air Contaminants

Based on the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*, the Project may have a significant TAC impact, if:³⁶

- The Project emits carcinogenic or TACs that exceed the maximum incremental cancer risk as provided in Table IV.A-4 on page IV.A-32.

(d) Consistency with Applicable Air Quality Plans

Section 15125 of the State CEQA Guidelines requires an analysis of project consistency with applicable governmental plans and policies. In accordance with the SCAQMD's *CEQA Air Quality Handbook*,³⁷ the following criteria were used to evaluate the Project's consistency with SCAQMD and SCAG regional plans and policies, including the AQMP:

- Criterion 1: Will the Project result in any of the following:
 - An increase in the frequency or severity of existing air quality violations;
 - Cause or contribute to new air quality violations; or

³⁴ SCAQMD, *LST Methodology*.

³⁵ SCAQMD, *Final-Methodology to Calculate Particulate Matter (PM) 2.5 and PM_{2.5} Significance Thresholds, October 2006*.

³⁶ SCAQMD, *CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a project) and Chapter 10 (Assessing Toxic Air Pollutants)*, 1993.

³⁷ SCAQMD, *CEQA Air Quality Handbook, Chapter 12, Assessing Consistency with Applicable Regional Plans*, 1993.

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- Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?
 - Criterion 2: Will the Project exceed the assumptions utilized in preparing the AQMP?
 - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
 - Does the Project include air quality mitigation measures; or
 - To what extent is Project development consistent with the AQMP land use policies?

The Project's impacts with respect to these criteria are discussed to assess the consistency with 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.

(e) Cumulative Impacts

Based on SCAQMD guidance, individual construction projects that exceed SCAQMD's recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment.³⁸ As discussed in SCAQMD's White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution (August 2003):

As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR.... Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.³⁹

The cumulative analysis of air quality impacts within this Draft EIR follows SCAQMD's guidance such that construction or operational Project emissions will be

³⁸ Wong, Jillian. SCAQMD CEQA Specialist, personal communication, August 8, 2016.

³⁹ SCAQMD, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003, Appendix D.

considered cumulatively considerable if Project-specific emissions exceed an applicable SCAQMD recommended daily threshold.

b. Methodology

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

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate the air quality issues associated with new development projects within the Air Basin, such as the Project. Instead, SCAQMD published the *CEQA Air Quality Handbook* in November 1993 to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects proposed in the Air Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*.⁴⁰

In order to assist the CEQA practitioner in conducting an air quality analysis in the interim while the replacement *Air Quality Analysis Guidance Handbook* is being prepared, supplemental guidance/information is provided on the SCAQMD website (www.aqmd.gov/ceqa/hdbk.html) and includes: (1) EMFAC on-road vehicle emission factors; (2) background CO concentrations; (3) localized significance thresholds; (4) mitigation measures and control efficiencies; (5) mobile source toxics analysis; (6) off-road mobile source emission factors; (7) PM_{2.5} significance thresholds and calculation methodology; and (8) updated SCAQMD Air Quality Significance Thresholds. 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.

⁴⁰ SCAQMD, *Air Quality Analysis Handbook*, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook, accessed January 10, 2022.

(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 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 demolish existing buildings, remove existing pavement, grade and excavate the Project Site, construct the proposed buildings and related improvements, and plant new landscaping within the Project Site.

CalEEMod is based on outputs from Off-road Emissions Inventory Program model⁴¹ (OFFROAD) and Emission FACtor model⁴² (EMFAC), which are emissions estimation models developed by CARB, and used to calculate emissions from construction activities, including off- and on-road vehicles, respectively. CalEEMod also relies upon known emissions data associated with certain activities or equipment (often referred to as “default” data, values or factors) that can be used if site-specific information is not available. CalEEMod contains default values to use in each specific local air district region. Appropriate statewide default values can be used, if regional default values are not defined. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Construction tasks were aggregated to reflect overlapping tasks and identify the reasonably expected maximum construction emissions occurring over the course of Project construction. To be conservative, this analysis evaluates the Project’s air quality impacts during construction based on reasonably expected maximum construction emissions, even though such emissions would not occur throughout the entire construction phase. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix B of this Draft EIR.

(b) Localized Emissions

The localized effects from the on-site portion of daily construction emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to

⁴¹ CARB, *2017 Off-road Diesel Emission Factors*.

⁴² CARB, *EMFAC 2014*.

SCAQMD's LST methodology, which uses on-site mass emissions rate look-up tables and Project-specific modeling, where appropriate.⁴³ SCAQMD provides LSTs applicable to the following criteria pollutants: NO_x; CO; PM₁₀; and PM_{2.5}. SCAQMD does not provide an LST for SO₂ 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 O₃ formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. The 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 five acres. If the project exceeds the LST look-up values, then SCAQMD recommends that project-specific air quality modeling must be performed.

(2) Operation Emissions Methodology

(a) *Regional Emissions*

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

Criteria pollutants are emitted during the generation of electricity at fossil fuel power plants. When electricity is used in buildings, the electricity generation typically takes place offsite power plants, the majority of which burn fossil fuels. Because power plants are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves, and not individual

⁴³ SCAQMD, *LST Methodology Appendix C-Mass Rate LST Look-Up Table*, October 2009.

buildings or electricity users. Additionally, criteria pollutant emissions from power plants are subject to local, state, and federal control measures, which can be considered to be the maximum feasible level of mitigation for stack emissions. CalEEMod therefore does not calculate criteria pollutant emissions from regional power plants associated with building electricity use.

Similar to construction, SCAQMD's CalEEMod model was used to estimate Project emissions during operation. Mobile-source emissions were calculated within CalEEMod. However, CalEEMod default VMT was bypassed to account for the Project-related VMT provided using the Los Angeles Department of Transportation (LADOT) VMT Calculator. The VMT Calculator was developed by the City and LADOT to comply with SB 743, which requires lead agencies to adopt VMT criteria to determine transportation related impacts.⁴⁴ CalEEMod calculates mobile source emissions using the Project's VMT, trip generation, and emission factors based on EMFAC2014.⁴⁵ Although the USEPA approved the use of EMFAC2017 on August 15, 2019, CalEEMod has not yet been updated to include EMFAC2017 emission factors.⁴⁶ Changes to EMFAC2017 results in higher emission factors for certain vehicle categories and activities but also decrease emission factors for other activities in comparison to EMFAC2014. The updates to EMFAC2017 results in similar emission factors when compared to EMFAC2014.

Area source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product usage (including paints) rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the California Energy Commission California Commercial End Use Survey data set, which provides energy demand by building type and climate zone. Emissions associated with use of emergency generators were calculated using CalEEMod, in which emission factors are based on Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel Engines) from EPA's AP-42: Compilation of Air Pollutant Emission Factors. The emissions are based on the horsepower rating of the diesel generator and the number of hours operated per year for testing purposes.

To determine if a significant air quality impact would occur, the net increase in regional operational emissions generated by the Project was compared against SCAQMD's

⁴⁴ *Fehr & Peers Transportation Consultants, 1360 N. Vine Street Project Transportation Assessment, September 2020. Refer to Appendix R of this Draft EIR.*

⁴⁵ *CAPCOA, California Emissions Estimator Model, Appendix A: Calculation Details for CalEEMod, October 2017.*

⁴⁶ *84 FR 41717*

significance thresholds.⁴⁷ Refer to Appendix B of this Draft EIR for additional information regarding methodology.

(b) Localized Emissions

(i) On-Site Emissions

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

It has long been recognized that CO exceedances are caused by vehicular emissions,⁴⁸ primarily when idling at intersections.^{49,50} 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.⁵¹ 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).⁵² With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the Air Basin have steadily declined.

The analysis prepared for CO attainment in the Air Basin by SCAQMD can be used to assist in evaluating the potential for CO exceedances in the Air Basin. CO attainment

⁴⁷ 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.).

⁴⁸ USEPA, *Air Quality Criteria for Carbon Monoxide*, EPA 600/P-099/001F, 2000.

⁴⁹ SCAQMD, *CEQA Air Quality Handbook*, Section 4.5, 1993.

⁵⁰ SCAQMD, *Air Quality Management Plan*, 2003.

⁵¹ 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 10, 2021.

⁵² 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.

was thoroughly analyzed as part of the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan).⁵³

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: Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The 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 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 The AQMP CO hotspots modeling also took into account worst-case meteorological conditions and background CO concentrations. 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 at peak morning traffic and Level F at peak afternoon traffic.^{55,56} 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 using California LINE Source Dispersion Model, version 4 (CALINE4), which is a model used to assess air quality impacts near transportation facilities (i.e., roadways, intersections, street canyons, and parking facilities).

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

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.⁵⁷ SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity of freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). SCAQMD's document introduces land use-related policies that rely on design and distance

⁵³ SCAQMD, *Federal Attainment Plan for Carbon Monoxide, 1992*.

⁵⁴ Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

⁵⁵ Metro measured traffic volumes and calculated the LOS for the intersection of Wilshire Blvd./Sepulveda Ave., which is a block west along Wilshire Blvd., still east of Interstate 405.

⁵⁶ Metro, *Congestion Management Program for Los Angeles County. Exhibit 2-6 and Appendix A, 2004*.

⁵⁷ SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005*.

parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

Potential TAC impacts are 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.

c. Project Design Features

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

d. Analysis of Project Impacts

As set forth in Section II, Project Description, of this Draft EIR, the Project proposes two development options—the Residential Option and the Office Option.

The Residential Option would develop a new high-rise building with four levels of subterranean parking consisting of up to 429 new residential units, an approximately 55,000-square-foot grocery store, approximately 5,000 square feet of neighborhood-serving commercial retail uses and 8,988 square feet of uses in the bungalows. The bungalows would be rehabilitated and adapted for reuse as either restaurants or residential units, in which case the development would still propose a total of 429 residential units. Overall, the Residential Option would provide approximately 484,421 square feet of floor area within the Project Site.

The Office Option would develop a new high-rise building with eight levels of subterranean parking with approximately 463,521 square feet of office uses and 11,914 square feet of restaurant uses in the proposed building. The bungalows would be rehabilitated and adapted for reuse as restaurants or nine residential uses with approximately 8,988 square feet of total floor area. Upon completion, the Office Option would provide approximately 484,423 square feet of floor area within the Project Site.

The following analysis accounts for both development options and the term “Project” is used unless stated otherwise.

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

(1) Impacts Analysis

(a) SCAQMD CEQA Air Quality Handbook Policy Analysis

The following analysis addresses the Project’s consistency with applicable SCAQMD and SCAG policies, inclusive of regulatory compliance. In accordance with the procedures established in SCAQMD’s *CEQA Air Quality Handbook*, the following criteria are required to be addressed in order to determine the Project’s consistency with applicable SCAQMD and SCAG policies:

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

(i) Criterion 1

With respect to the first criterion, as discussed below, localized concentrations of NO₂ as NO_x, CO, PM₁₀, and PM_{2.5} have been analyzed for the Project. SO₂ 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 SO₂ 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 O₃ 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 PM₁₀ 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 PM₁₀ and PM_{2.5}. **As shown in Table IV.A-8 on page IV.A-59 in the analysis below, the increases in PM₁₀ 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.A-8 in the analysis below, NO_x and CO would not exceed the SCAQMD-recommended localized significance thresholds. **Therefore, Project construction would not result in a significant impact with regard to localized air quality.**

Because the Project would not introduce any substantial stationary sources of emissions, CO is the preferred benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations.⁵⁸ As indicated below, no intersections would require a CO hotspot analysis, and impacts would be less than significant. **Therefore, the Project would not increase the frequency or severity of an existing CO violation or cause or contribute to new CO violations.**

An analysis of potential localized operational impacts from on-site activities was also conducted. As shown in Table IV.A-9 on page IV.A-61 in the analysis below, localized NO₂ as NO_x, CO, PM₁₀, 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.**

(ii) Criterion 2

With respect to the second criterion for determining consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016–2040 RTP/SCS regarding population, housing, and growth

⁵⁸ SCAQMD, *CEQA Air Quality Handbook*, Chapter 12, *Assessing Consistency with Applicable Regional Plans*, 1993.

trends. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with applicable population, housing, and employment growth projections; (2) Project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis with respect to each of these three criteria.

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

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

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

According to SCAG's 2016–2040 RTP/SCS, the forecasted population for the City of Los Angeles Subregion in 2017 is approximately 3,981,911 persons.⁵⁹ In 2025, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have a population of approximately 4,200,168 persons.^{60,61} Based on generation rates provided by the City of Los Angeles VMT Calculator Documentation, development of 429 dwelling units for the Residential Option would generate approximately 966 residents.⁶² The estimated 966 residents generated by the Project would represent approximately 0.44

⁵⁹ Based on a linear interpolation of 2012–2040 data from the 2016–2040 RTP/SCS.

⁶⁰ Project construction is anticipated to be completed as late as 2027. Based on SCAQMD emission factors, construction equipment and operational vehicle trips would demit less pollution in future years due to more stringent emissions control regulations. As construction and operational activities are based on an earlier start date and completion date (2025), the emissions presented are more conservative.

⁶¹ Based on a linear interpolation of 2012–2040 data from the 2016–2040 RTP/SCS.

⁶² Based on City of Los Angeles VMT Calculator Documentation (Version 1.3), May 2020, Table 1: Land Use and Trip Generation Base Assumptions. The residential generation rate of approximately 2.25 residents per dwelling unit for "Multi-Family Residential" land use is applied to the 429 dwelling units. As documented in Appendix D, VMT Analysis LADOT Calculator Worksheets, of the Project's Transportation Assessment (Appendix R of this Draft EIR), the Residential Option would generate approximately 966 residents.

percent of the population growth forecasted by SCAG in the City of Los Angeles Subregion between 2017 and 2025. For the Office Option, with nine residential units proposed for the bungalows, the estimated 29 new residents⁶³ would represent approximately 0.13 percent of the population growth forecasted by the SCAG 2016–2040 RTP/SCS in the City of Los Angeles Subregion between 2017 and 2025.

Development of the Residential Option would generate up to approximately 266 employees from retail, restaurant and market uses based on employee generation rates from the City of Los Angeles VMT Calculator Documentation.⁶⁴ Development of the Office Option would generate up to approximately 1,938 employees.⁶⁵ According to the 2016–2040 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2017 is approximately 1,780,811 employees.⁶⁶ In 2025, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 1,915,868 employees.⁶⁷ Thus, the Residential Option’s estimate of up to 266 employees would constitute approximately 0.2 percent of the employment growth forecasted between 2017 and 2025.⁶⁸ The Office Option’s estimate of up to 1,938 employees would constitute approximately 1.4 percent of the employment growth forecasted between 2017 and 2025.

⁶³ Based on City of Los Angeles VMT Calculator Documentation (Version 1.3), May 2020, Table 1: Land Use and Trip Generation Base Assumptions. The residential generation rate of approximately 3.15 residents per dwelling unit for “Single-Family Residential” land use is applied to the nine dwelling units. {While the bungalows would actually be multi-family units, the single-family rate would provide a more conservative assumption.} As documented in Appendix D, VMT Analysis LADOT Calculator Worksheets, of the Project’s Transportation Assessment (Appendix R of this Draft EIR), Office Option with residential bungalows would generate approximately 29 residents.

⁶⁴ Based on the City of Los Angeles VMT Calculator Documentation Guide, Table 1, May 2020, for the Residential Option with reuse of bungalows as restaurants, the employee generation rate 0.004 employee per square foot for “Supermarket” land use is applied to the 55,000-square-foot grocery store, the rate 0.002 employee per square foot for “General Retail” land use is applied to the 5,000 square feet of commercial retails uses, and the rate 0.004 employee per square foot for “High-Turnover Sit-Down Restaurant” land use is applied to the 8,988 square feet of restaurant uses. The Residential Option with residential bungalows would generate 230 employees, which would be less than the 266 employees generated by the Residential Option with restaurant bungalows.

⁶⁵ Based on the City of Los Angeles VMT Calculator Documentation Guide, Table 1, May 2020, for Office Option, the employee generation rate 0.004 employee per square foot for “General Office” land use is applied to the 463,521 square feet, and the employee generation rate 0.004 employee per square foot for “Quality Restaurant” land use is applied to the 11,914 square feet of restaurant use. The Office Option with residential bungalows would generate 1,902 employees, which would be less than the 1,938 employees generated by the Office Option with restaurant bungalows.

⁶⁶ Based on a linear interpolation of 2012–2040 data from the 2016–2040 RTP/SCS.

⁶⁷ Based on a linear interpolation of 2012–2040 data from the 2016–2040 RTP/SCS.

⁶⁸ Project construction is anticipated to be completed as late as 2027. Based on SCAQMD emission factors, construction equipment and operational vehicle trips would emit less pollution in future years due to more stringent emissions control regulations. As construction and operational activities are based on an earlier start date and completion date (2025), the emissions presented are more conservative.

Accordingly, the Project's generation of residents and employees would be consistent with the population and employment projections contained in the 2016–2040 RTP/SCS. **Because 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.**

- Does the project implement feasible air quality mitigation measures?

The Project would comply with all applicable SCAQMD regulatory standards (e.g., SCAQMD Rule 403, etc.), as summarized above. The Project also would incorporate project design features to support and promote environmental sustainability as discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. Project design features include incorporation of features of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) program to be capable of meeting the standards of LEED Silver® or equivalent green building standards. Specific sustainability features that are integrated into the Project design to enable the Project to achieve LEED Silver® certification would include use of Energy Star-labeled product and appliances, and water-efficient planting with drought-tolerant species, among others. 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.E, Greenhouse Gas Emissions, of this Draft EIR, no significant air quality impacts would occur and thus no mitigation measures are required. **As such, the Project meets this AQMP consistency criterion.**

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

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

With regard to land use developments, such as the Project, the AQMP's 2016–2040 RTP/SCS land use control measures (i.e., goals and policies) focus on the reduction of vehicle trips and vehicle miles traveled (VMT). As discussed in detail in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR, the Project results in a daily per capita VMT of 5.6 miles for residents under the Residential Option, 5.2 miles for employees under the Office Option with Restaurant and 3.1 miles for employees under the Office Option with Bungalows, which represents a reduction of 21 percent for residents and 42 percent for employees under the Office Option with Restaurant and 65 percent under the Office Option with Bungalows in daily per capita VMT when compared to the Area Planning Commission

(APC) designated for the Project area. This level of VMT per capita is consistent with Office of Planning and Research's (OPR) recommended reduction in VMT per capita to meet the State's GHG emission reduction goals.

The Project represents an infill development within an existing urbanized area that would introduce new uses on the Project Site, including new residential, neighborhood-serving commercial, restaurant, and grocery store or office uses within a high-quality transit area (HQTA).⁶⁹ Therefore, the Project would be consistent with SCAG's 2016–2040 RTP/SCS, as it is located within an HQTA.

The Project would be designed and constructed with sustainability and transit orientation as guiding principles. The mix of residential, commercial, and/or office uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation. The Project Site is also located less than 0.5 mile south of the Metro B Line (Red) Hollywood/Vine Station. In addition, the Project Site is served by seven Metro Local lines and three LADOT DASH lines. The Project would also provide required short- and long-term bicycle parking spaces in compliance with the requirements of the Los Angeles Municipal Code (LAMC). The increase in transit accessibility and the bicycle parking spaces provided on-site would further reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation. The Project design would also provide pedestrian access that minimizes barriers and links the Project Site with external streets to encourage people to walk instead of drive.

As discussed under Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project design includes characteristics in addition the measures accounted for in the Project's Transportation Assessment prepared by Fehr & Peers Transportation Consultants that would reduce trips and VMT as compared to a standard project within the Air Basin as measured by the air quality model (CalEEMod).⁷⁰ While these Project characteristics primarily reduce greenhouse gas emissions, they would also reduce criteria air pollutants discussed herein. These relative reductions in vehicle trips and VMT from a standard project within the Air Basin help quantify the criteria air pollutant emissions reductions achieved by locating the Project in any infill, HQTA area that promotes alternative modes of transportation.

⁶⁹ *Defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.*

⁷⁰ *Fehr & Peers Transportation Consultants, 1360 N. Vine Street Project Transportation Assessment, September 2020.*

Previously, trip generation for land uses was calculated based on survey data collected by the Institute of Transportation Engineers (ITE). However, these ITE trip generation rates were based on data collected at suburban, single-use, free standing sites, which may not be representative of urban mixed-use environments. Beginning in 2019, the USEPA has sponsored a study to collect travel survey data from mixed-use developments in order provide a more representative trip generation rate for multi-use sites. Results of the USEPA survey indicate that trip generation and VMT are affected by factors such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the EPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use developments.⁷¹ The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. As shown in Appendix B of this Draft EIR, incorporation of USEPA MXD VMT reduction features applicable to the Project Residential Option under both the Bungalow and Restaurant option results in a 40 percent reduction in overall VMT and resultant pollutant emissions in comparison to a project without reduction features. The Project's Office Option results in a 45-percent reduction in VMT under the Bungalow option and 42-percent reduction under the Restaurant option and pollutant emissions in comparison to a project without reduction features.

Accordingly, as the Project would support SCAG's and SCAQMD's objectives of reducing VMT and the related vehicular air emissions, the Project is consistent with the 2016–2040 RTP/SCS (i.e., control measures of the AQMP).

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of the Project on air quality in the Air Basin. The Project represents an infill development near transit within an existing urbanized area that would concentrate new residential, retail, and office uses within an HQTAs, 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, PM₁₀, and PM_{2.5}. The Project would also be consistent with the goals and policies of the AQMP for the control of fugitive dust. As discussed above, the Project's would be consistent with the goals and policies of the AQMP and, therefore, is considered consistent with SCAQMD's AQMP.

⁷¹ USEPA, *Mixed-Use Trip Generation Model*, www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed on January 10, 2022.

(b) City of Los Angeles Policies

As discussed above, the Air Quality Element of the City's General Plan was adopted on November 24, 1992, and sets forth the goals, objectives, and policies, which guide the City in the implementation of its air quality improvement programs and strategies. The Air Quality Element acknowledges the interrelationships among transportation and land use planning in meeting the City's mobility and air quality goals.

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

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

Objective 2.1—It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.

Policy 2.1.1—Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to reduce Vehicle Trips and/or Vehicle Miles Traveled (VMT) as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.

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

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

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

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

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

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

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

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

The Project would promote these goals, objectives and policies stated above. Specifically, the Project includes short- and long-term bicycle parking spaces for the proposed residential and commercial uses as required by the LAMC and is located 0.4 mile north of the Metro B Line (Red) Hollywood/Vine Station. As such, the Project would provide opportunities for the use of alternative modes of transportation, including convenient access to public transit, opportunities for walking and biking, and on-site neighborhood-serving retail and restaurant uses, 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. **Based on the above, the Project is consistent with applicable policies of the City of Los Angeles Air Quality Element.**

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

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Project-level impacts with regard to Threshold (a) were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.

Threshold (b): 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?

(1) Impacts Analysis

(a) Regional Emissions

(i) Construction

As discussed previously, the Project proposes a Residential Option and Office Option. As the square footage and excavation quantities would be different for both options, analysis of construction emissions was performed for each development option.

As described in Section II, Project Description, of this Draft EIR, construction of the Project would commence with demolition of the existing commercial structures, the multi-family residential building, and surface parking areas, and relocation of the six bungalows. This phase would be followed by grading and excavation for the subterranean parking garage. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. Project construction is anticipated to be completed as late as 2027 for both Project Options. For purposes of conservatively analyzing construction impacts, it was assumed that construction of the Project could be completed as early as 2025. Based on SCAQMD factors, the construction equipment and truck fleet mix will emit less pollution in future years due to more stringent emissions control regulations. As construction activities for the Project are evaluated based on an earlier start date, the emissions presented are more conservative.

For the Residential Option, the estimated depth of excavation expected for the subterranean parking and building foundations would be up to approximately 45 feet below grade. It is estimated that approximately 142,000 cubic yards of export material (e.g., concrete and asphalt surfaces) and soil would be hauled from the Project Site during the demolition and excavation phase.

For the Office Option, the estimated depth of excavation expected for the 8 levels of subterranean parking and building foundations would be up to approximately 83 feet below grade. It is estimated that approximately 321,060 cubic yards of export material and soil would be hauled.

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

The emissions levels in Table IV.A-5 on page IV.A-54 represent the highest daily emissions projected to occur during each year of construction under the Residential Option and Office Option. As discussed previously, each Option would have the possibility of the bungalows being replaced with restaurant or residential uses. Construction activities would be similar under both the restaurant or residential scenarios. As presented in Table IV.A-5, construction-related daily maximum regional construction emissions under both options and scenarios would not exceed any of the SCAQMD daily significance thresholds. **Therefore, regional construction emissions resulting from the Project would result in a less-than-significant air quality impact.**

(ii) Operation

As discussed above, SCAQMD's CalEEMod was used to calculate regional area, energy, mobile source, and stationary emissions. The Project would incorporate project design features to support and promote environmental sustainability, as discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also likely serve to reduce criteria air pollutants discussed herein. For purposes of the air quality analysis, project design features incorporated in this analysis include the Project Site's increase in accessibility to transit and increase in diversity of uses and density. These project design features are explained further in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR.

Table IV.A-6 and Table IV.A-7 on pages IV.A-55 and IV.A-56, respectively, provide Project operational emissions with incorporation of project design features for the Residential and Office Options. As shown in Table IV.A-6 and Table IV.A-7, regional

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

Construction Year	VOC ^b	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Regional Construction Emissions—Residential Option						
2021	2	18	15	<1	1	<1
2022	4	55	31	<1	4	2
2023	5	29	42	<1	7	3
2024	43	24	41	<1	7	2
2025	44	32	54	<1	8	3
Maximum Daily Regional Emissions	44	55	54	<1	8	3
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(31)	(45)	(496)	(150)	(142)	(52)
Exceed Threshold?	No	No	No	No	No	No
Regional Construction Emissions—Office Option						
2021	2	18	15	<1	1	<1
2022	4	61	33	<1	4	2
2023	5	43	42	<1	7	3
2024	33	25	43	<1	7	2
2025	34	33	56	<1	8	3
Maximum Daily Regional Emissions	34	61	56	<1	8	3
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(41)	(39)	(494)	(150)	(142)	(52)
Exceed Threshold?	No	No	No	No	No	No
<p>Numbers may not add up exactly due to rounding.</p> <p>^a The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR.</p> <p>^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.</p> <p>Source: Eyestone Environmental, 2020.</p>						

emissions resulting from operation of the Residential or Office Option would not exceed any of the SCAQMD's daily regional operational thresholds. **Therefore, air quality impacts from Project operational emissions would be less than significant.**

(b) Localized Emissions

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

Table IV.A-6
Estimate of Maximum Regional Project Daily Operational Emissions (Residential Option)—At
Project Buildout (2025)^a

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Residential Option with Bungalows						
Area	14	<1	42	<1	1	1
Energy (Natural Gas)	<1	1	<1	<1	<1	<1
Mobile	6	25	63	<1	23	6
Stationary	<1	<1	<1	<1	<1	<1
Total Proposed Uses Emissions	20	27	106	<1	24	8
SCAQMD Significance Threshold	55	55	550	150	150	55
Over/(Under)	(35)	(28)	(444)	(150)	(126)	(47)
Exceed Threshold?	No	No	No	No	No	No
Residential Option with Restaurant						
Area	11	<1	35	<1	<1	<1
Energy (Natural Gas)	<1	2	1	<1	<1	<1
Mobile	6	27	69	<1	25	7
Stationary	<1	<1	<1	<1	<1	<1
Total Proposed Uses Emissions	18	30	107	<1	25	7
SCAQMD Significance Threshold	55	55	550	150	150	55
Over/(Under)	(37)	(25)	(443)	(150)	(125)	(48)
Exceed Threshold?	No	No	No	No	No	No
<p>Numbers may not add up exactly due to rounding.</p> <p>^a The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR. The table reflects net emissions (i.e., Project emissions less existing emissions).</p> <p>Source: Eyestone Environmental, 2020.</p>						

(i) Construction

Project-related localized construction impacts are evaluated based on SCAQMD LST methodology which takes into account ambient pollutant concentrations. Based on SCAQMD methodology, localized emissions which exceed LSTs would also cause an exceedance of ambient air quality standards. As analyzed in Threshold (c) below, Project-related construction emissions would not exceed localized thresholds. **Therefore, localized construction emissions resulting from the Project would result in a less-than-significant air quality impact.**

**Table IV.A-7
Estimate of Maximum Regional Project Daily Operational Emissions (Office Option)—At Project
Buildout (2025)^a**

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Office Option with Bungalows^b						
Area	14	<1	7	<1	<1	<1
Energy (Natural Gas)	<1	2	2	<1	<1	<1
Mobile	3	15	41	<1	15	4
Stationary	<1	<1	<1	<1	<1	<1
Total Proposed Uses Emissions	17	18	50	<1	16	5
SCAQMD Significance Threshold	55	55	550	150	150	55
Over/(Under)	(38)	(37)	(500)	(150)	(134)	(50)
Exceed Threshold?	No	No	No	No	No	No
Office Option with Restaurant						
Area	10	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	2	2	<1	<1	<1
Mobile	4	18	49	<1	18	5
Stationary	<1	<1	<1	<1	<1	<1
Total Proposed Uses Emissions	15	21	52	<1	18	5
SCAQMD Significance Threshold	55	55	550	150	150	55
Over/(Under)	(40)	(34)	(498)	(150)	(132)	(50)
Exceed Threshold?	No	No	No	No	No	No
<p>Numbers may not add up exactly due to rounding.</p> <p>^a The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR. The table reflects net emissions (i.e., Project emissions less existing emissions).</p> <p>^b The CalEEMod worksheets included in Appendix B of this Draft EIR analyzed 12 residential units in the rehabilitated bungalows. Nine residential units are currently proposed, so the data presented herein is conservative.</p> <p>Source: Eyestone Environmental, 2020.</p>						

(ii) Operations

Project-related operational emissions were also evaluated based on SCAQMD LST methodology. While SCAQMD LST methodology evaluates emissions from on-site sources (e.g., water heaters, cooking appliances, HVAC), off-site sources such as Project-related vehicle trips were also evaluated for potential exceedances of ambient air quality standards. As analyzed in Threshold (c) below, Project-related operational emissions from on-site and off-site sources would not exceed localized thresholds. **Therefore, localized**

operational emissions resulting from the Project would result in a less-than-significant air quality impact.

(c) Conclusion

According to SCAQMD, individual projects that exceed its 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.A-5, Table IV.A-6, and Table IV.A-7 on pages IV.A-54, IV.A-55, and IV.A-56, respectively, Project construction and operational daily emissions at the Project Site would not exceed any of SCAQMD's regional thresholds for the Residential and Office Options. Therefore, the Project's contribution to cumulative regional emissions would not be cumulatively considerable and therefore would be less than significant. As analyzed below, construction and operation of the Project also would have a less-than-significant impact with regard to localized emissions. Therefore, the Project's contribution to cumulative air quality impacts due to localized emissions would also not be cumulatively considerable and therefore would be less than significant. **As such, the Project would not 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, and impacts would be less than significant.**

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Project-level impacts with regard to Threshold (b) were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.

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

(1) Impacts Analysis

(a) Construction

(i) On-Site Construction Activities (Criteria Pollutants)

As discussed above in the methodology subsection, the localized construction air quality analysis was conducted using the methodology promulgated by SCAQMD. Look-up

tables provided by SCAQMD were used to determine localized construction emissions thresholds for the Project.⁷² 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 (2017–2019) for the Project area presented in Table IV.A-2 on page IV.A-24. Although the trend shown in Table IV.A-2 demonstrates that ambient air quality is improving in the area, the localized construction emissions analysis conservatively did not apply a reduction in background pollutant concentrations for subsequent years of construction (i.e., 2021–2025). By doing so, the allowable pollutant increment to not exceed an ambient air quality standard is more stringent. The analysis is based on existing background ambient air quality monitoring data (2017–2019).

Maximum on-site daily construction emissions for NO_x, CO, PM₁₀, and PM_{2.5} were calculated using CalEEMod and compared to the applicable SCAQMD LSTs for SRA 1 based on a one-acre site. Potential impacts were evaluated at the closest off-site sensitive receptor, which are residential uses directly adjacent and east 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 (such as the Project) should use the LSTs for receptors located at 25 meters.⁷³

The maximum daily localized emissions from Project construction and LSTs are presented in Table IV.A-8 on page IV.A-59 for the Residential and Office Option. As presented in Table IV.A-8, maximum construction emissions under the Residential and Office Options would not exceed the SCAQMD-recommended localized screening thresholds for NO_x, CO, PM₁₀ and PM_{2.5}. **As a result, Project-related on-site construction activities would result in a less than significant impact with regard to localized emissions, and no mitigation measures are required.**

(ii) Off-Site Construction Activities (Toxic Air Contaminants)

The greatest potential for TAC emissions during construction would be from diesel particulate emissions associated with heavy equipment operations. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. “Individual Cancer Risk” is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. Given the short-term construction schedule of approximately 38 months, the Project would not result in a long-term (i.e.,

⁷² SCAQMD, *LST Methodology Appendix C-Mass Rate LST Look-up Table*, revised October 2009.

⁷³ SCAQMD, *Final Localized Significance Threshold Methodology*, revised July 2008.

**Table IV.A-8
Estimate of Maximum Localized Daily Project Construction Emissions
(pounds per day)**

Construction Year	NO _x	CO	PM ₁₀	PM _{2.5}
Residential Option				
2021	15	14	1	1
2022	35	24	<1	<1
2023	26	28	1	1
2024	22	28	1	1
2025	30	40	1	1
Maximum Daily Localized Emissions	35	40	1	1
SCAQMD Daily Significance Thresholds^a	51	963	7	4
Over/(Under)	(16)	(922)	(6)	(3)
Exceed Threshold?	No	No	No	No
Office Option				
2021	15	14	1	1
2022	36	23	1	1
2023	36	28	1	1
2024	23	30	1	1
2025	31	42	1	1
Maximum Daily Localized Emissions	36	42	1	1
SCAQMD Daily Significance Thresholds^a	51	963	7	4
Over/(Under)	(15)	(921)	(6)	(3)
Exceed Threshold?	No	No	No	No
<p>Numbers may not add up exactly due to rounding.</p> <p>^a Potential localized construction impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The SCAQMD Daily Significance Thresholds are based on the 1.86 acre Project Site and were interpolated between the 1 acre and 2 acre thresholds. The closest sensitive receptors are residential uses directly adjacent and east 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.</p> <p>Source: Eystone Environmental, 2020.</p>				

70-year) source of TAC emissions. Additionally, the SCAQMD CEQA guidance does not require a health risk assessment (HRA) for short-term construction emissions. It is, therefore, not necessary to evaluate long-term cancer impacts from construction activities which occur over a relatively short duration. In addition, there would be no residual emissions or corresponding individual cancer risk after construction. **As such, Project-related TAC impacts during construction would be less than significant.**

(b) Operation

(i) On-Site Operational Activities (Criteria Pollutants)

Operation of the Project would not introduce any major new sources of air pollution within the Project Site. Emissions estimates for criteria air pollutants from on-site sources are presented in Table IV.A-9 on page IV.A-61 for the Residential Option and Table IV.A-10 on page IV.A-62 for the Office Option.

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.A-9, on-site operational emissions would not exceed any of the LSTs. **Therefore, localized on-site operational emissions resulting from the Project would result in a less-than-significant air quality impact.**

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

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

At buildout of the Project, the highest average daily trips at an intersection under the Future With Project Conditions for both the Residential and Office Options, would be approximately 125,000 trips at the Sunset Boulevard and Vine Street intersection,⁷⁴ which is significantly below the daily traffic volumes that would be expected to generate CO exceedances as evaluated in the 2003 AQMP.^{75,76} This daily trip estimate is based on the hour conditions of the intersection. There is no reason unique to the Air Basin peak-meteorology to conclude that the CO concentrations at the Sunset Boulevard and Vine Street intersection would exceed the 1-hour CO standard if modeled in detail, based on the studies undertaken for the 2003 AQMP.⁷⁷ Therefore, the Project does not trigger the need for a detailed CO hotspots model and would not cause any new or exacerbate

⁷⁴ Fehr & Peers Transportation Consultants, 1360 N. Vine Street Project Transportation Assessment, September 2020. Refer to Appendix R of this Draft EIR.

⁷⁵ Daily trips calculated based on Caltrans K factors for the nearest freeway monitoring station. Details are provided in Appendix B of this Draft EIR.

⁷⁶ 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.

⁷⁷ 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.

Table IV.A-9
Estimate of Maximum Localized Project Daily Operational Emissions (Residential Option)—
(2025)^a
(pounds per day)

Emission Source	NO _x	CO	PM ₁₀	PM _{2.5}
Residential Option with Bungalows				
Area	<1	42	<1	<1
Energy (Natural Gas)	1	<1	<1	<1
Stationary	<1	<1	<1	<1
On-Site Total	3	43	1	1
SCAQMD Significance Threshold^b	51	963	2	2
Over/(Under)	(48)	(920)	(1)	(0.3)
Exceed Threshold?	No	No	No	No
Residential Option with Restaurant				
Area	<1	35	<1	<1
Energy (Natural Gas)	2	1	<1	<1
Stationary	<1	<1	<1	<1
On-Site Total	3	37	<1	<1
SCAQMD Significance Threshold^b	51	963	2	2
Over/(Under)	(48)	(926)	(2)	(1)
Exceed Threshold?	No	No	No	No
<p>Numbers may not add up exactly due to rounding.</p> <p>^a The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR. The table reflects net emissions (i.e., Project emissions less existing emissions).</p> <p>^b Potential localized operational impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The SCAQMD Daily Significance Thresholds are based on the 1.86 acre Project Site and were interpolated between the 1 acre and 2 acre thresholds. The closest sensitive receptors are residential uses directly adjacent and east 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.</p> <p>Source: Eyestone Environmental, 2020.</p>				

any existing CO hotspots. **As a result, impacts related to localized mobile-source CO emissions are considered less than significant.** The supporting data for this analysis is included in Appendix B of this Draft EIR.

(iii) Toxic Air Contaminants

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*

Table IV.A-10
Estimate of Maximum Localized Project Daily Operational Emissions (Office Option)—
(2025)^a
(pounds per day)

Emission Source	NO _x	CO	PM ₁₀	PM _{2.5}
Office Option with Bungalows^b				
Area	<1	7	<1	<1
Energy (Natural Gas)	2	2	<1	<1
Stationary	<1	<1	<1	<1
On-Site Total	3	10	1	1
SCAQMD Significance Threshold^c	51	963	2	2
Over/(Under)	(48)	(953)	(1)	(0.4)
Exceed Threshold?	No	No	No	No
Office Option with Restaurant				
Area	<1	<1	<1	<1
Energy (Natural Gas)	2	2	<1	<1
Stationary	<1	<1	<1	<1
On-Site Total	3	3	<1	<1
SCAQMD Significance Threshold^b	51	963	2	2
Over/(Under)	(48)	(960)	(2)	(1.3)
Exceed Threshold?	No	No	No	No
<p>Numbers may not add up exactly due to rounding.</p> <p>^a The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this Draft EIR. The table reflects net emissions (i.e., Project emissions less existing emissions).</p> <p>^b The CalEEMod worksheets included in Appendix B of this Draft EIR analyzed 12 residential units in the rehabilitated bungalows. Nine residential units are currently proposed, so the data presented herein is conservative.</p> <p>^c Potential localized operational impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1. The SCAQMD Daily Significance Thresholds are based on the 1.86 acre Project Site and were interpolated between the 1 acre and 2 acre thresholds. The closest sensitive receptors are residential uses directly adjacent and east 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.</p> <p>Source: Eyestone Environmental, 2020.</p>				

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).⁷⁸ The SCAQMD adopted similar recommendations in its *Guidance Document for*

⁷⁸ CARB, *Air Quality and Land Use Handbook, a Community Health Perspective*, April 2005.

*Addressing Air Quality Issues in General Plans and Local Planning.*⁷⁹ 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.

On-Site Sources

The primary sources of potential air toxics associated with Project operations include diesel particulate matter from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets) and, to a lesser extent, facility operations (e.g., natural gas fired boilers). 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 HRAs be conducted for substantial individual sources of diesel particulate matter (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.⁸⁰ The Project would not include these types of land uses and is not considered to be a substantial source of diesel particulate matter warranting a refined HRA 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.⁸¹ In addition, the CARB-mandated ATCM limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than five minutes at any given time, which would further limit diesel particulate emissions.

Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes (e.g., chrome plating, electrical manufacturing, petroleum refinery). The Project would not include these types of potential industrial manufacturing process sources. It is expected that quantities of hazardous TACs generated on-site (e.g., cleaning solvents, paints, landscape pesticides, etc.) for the types of proposed land uses would be below thresholds warranting further study under the California Accidental Release Program (CalARP). As such, the Project would not release substantial amounts of TACs, and impacts on human health would be less than significant.

⁷⁹ SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005.

⁸⁰ SCAQMD, *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, 2002.

⁸¹ *The primary source of diesel truck activity would be related to the grocery store. Based on similar sized grocery stores, the Project's grocery store would be anticipated to generate approximately 11 to 15 deliveries per day. Source: TransNow Transportation Northwest and Washington State Department of Transportation, Truck Trip Generation by Grocery Stores, Table 2, August 2010.*

As the Project would not contain substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, the Project would not result in the exposure of off-site sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.

Off-Site Sources

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

As the Project would not place sensitive uses near substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, the Project would not result in the exposure of future on-site sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.

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

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Project-level impacts with regard to Threshold (c) were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.

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

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and in the Initial Study prepared for the Project, which is included as Appendix A of this Draft EIR, the Project would not create objectionable odors impacting a substantial number of people. **Thus, the Project would have a less than significant impact with respect to Threshold (d). No impacts from objectionable odors would occur and no further analysis is required.**

e. Cumulative Impacts

(1) Impacts Analysis

(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 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 SCAQMD's regional or localized significance thresholds. **Therefore, the Project's contribution to cumulative air quality impacts due to regional and localized emissions would also not be cumulatively considerable and therefore would be less than significant.**

Similar to the Project, the greatest potential for TAC emissions with respect to each related project would generally involve diesel particulate emissions associated with heavy equipment operations during demolition and grading/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 with respect to each related project would not result in a long-term (i.e., 70-year) substantial source of TAC emissions. In addition, SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information do not require a health risk assessment for short-term construction emissions. It is therefore not required or meaningful to evaluate long-term cancer impacts from construction activities which occur over relatively short durations. **Therefore, the Project's contribution to cumulative impacts on TACs during construction would not be cumulatively considerable, and cumulative impacts would be less than significant.**

(b) Operation

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

With respect to TAC emissions, neither the Project nor any of the related projects (which primarily include residential and retail/commercial uses), would represent a substantial source of TAC emissions, which are more 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 Project and each of the related projects would likely 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 ATCMs to control such substances, SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial Air 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 result in a cumulatively considerable impact or a cumulatively significant impact.

Based on the above, regional, localized, and TAC emissions during construction and operation of the Project would not be cumulatively considerable.

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

(2) Mitigation Measures

Cumulative impacts with regard to air quality would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Cumulative impacts with regard to air quality were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.