IV. Environmental Impact Analysis
B. Air Quality

1. Introduction

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

2. Environmental Setting

a. Air Quality Background

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

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

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

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

b. Air Pollution and Potential Health Effects

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality within the Air Basin. The criteria air pollutants for which national and state standards have been promulgated and which are most relevant to current air quality planning and regulation in the Air Basin include ozone (O_3), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and vinyl chloride (VC). In addition, toxic air contaminants (TAC) are of concern in the Air Basin. Each of these is briefly described below.

(1) Criteria Pollutants

(a) Ozone (O_3)

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

Table IV.B-1
Ambient Air Quality Standards

Pollutant	Averaging Period	California Standard[a]	Federal Standard[a]	SCAQMD Attainment Status[b]	
				California Standard[c]	Federal Standard[d]
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m^3)	—	Non-Attainment (Extreme)	—
	8 hour	0.07 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	Non-Attainment	Non-Attainment
Respirable Particulate Matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	Non-Attainment	Non-Attainment
	Annual	20 µg/m^3	—		
Fine Particulate Matter ($PM_{2.5}$)	24 hour	—	35 µg/m^3	Non-Attainment	Non-Attainment
	Annual	12 µg/m^3	12 µg/m^3		
Carbon Monoxide (CO)	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Attainment	Attainment
	8 hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)		
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm (339 µg/m^3)	0.10 ppm (188 µg/m^3)	Non-Attainment	Unclassified/ Attainment
	Annual	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)		
Lead (Pb)	30 day average	1.5 µg/m^3	—	Non-Attainment	Non-Attainment
	Rolling 3 month average	—	0.15 µg/m^3		
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	Attainment	Attainment
	3 hour	—	0.5 ppm (1,300 µg/m^3)		
	24 hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)		
	Annual	—	0.03 ppm (80 µg/m^3)		
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm (42 µg/m^3)	—	Unclassified	—
Vinyl Chloride	24 hour	0.01 ppm (26 µg/m^3)	—	Unclassified	—
Sulfates	24 hour	25 µg/m^3	—	Attainment	—
Visibility-Reducing Particles	8 hour	Extinction coefficient of 0.23 per kilometer (visibility of 10 miles or more due to particles when relative humidity is less than 70 percent)	—	Unclassified	—

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

Pollutant	Averaging Period	California Standard[a]	Federal Standard[a]	SCAQMD Attainment Status[b]	
				California Standard[c]	Federal Standard[d]

[a] *Ambient Air Quality Standards Chart (www.arb.ca.gov/research/aaqs/aaqs2.pdf). Last accessed March 5, 2014, and last updated June 4, 2013.*

[b] *"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.*

[c] *California standard attainment status based on 2012 State Area Designations maps (www.arb.ca.gov/desig/adm/adm.htm). Last accessed March 5, 2014, and last reviewed April 22, 2013.*

[d] *Federal standard attainment status based on National Area Designations maps (www.arb.ca.gov/desig/adm/adm.htm). Last accessed March 5, 2014, and last reviewed on April 22, 2013.*

Source: Matrix Environmental, 2014.

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

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

(c) Carbon Monoxide (CO)

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

(d) Nitrogen Dioxide (NO_2)

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

Effective April 12, 2010, the United States Environmental Protection Agency (USEPA) set a new 1-hour NO_2 standard at 0.10 part per million (188 $\mu g/m^3$).[1] To attain this standard, the three-year average of the 98th percentile of the daily maximum 1-hour average must not exceed 0.1 ppm. The USEPA cited evidence that short-term NO_2 exposures could contribute to adverse respiratory effects including increased asthma symptoms, worsened control of asthma, and an increase in respiratory illnesses and symptoms. The USEPA also identified that NO_2 concentrations on or near major roads can be approximately 30 to 100 percent higher than concentrations in the surrounding community, which could contribute to health effects for at-risk populations, including people with asthma, children, and the elderly.

(e) Sulfur Dioxide (SO_2)

Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

(f) Lead (Pb)

Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's

[1] *USEPA, Final Revisions to the Primary National Ambient Air Quality Standard for Nitrogen Dioxide (NO_2), General Overview, Office of Air and Radiation Office of Air Quality Planning and Standards, January 2010, p. 11-12.*

nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

(g) Volatile Organic Compounds (VOCs)

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

(h) Vinyl Chloride (VC)

VC is a chemical building block, or monomer, used in the production of polyvinyl chloride (PVC). PVC is used to make materials, including pipes, used in the construction, packaging, electrical, and transportation industries. Major sources of VC include PVC production and fabrication facilities and, at the other end of PVC's life cycle, as PVC deteriorates, landfills and publicly-owned treatment works. VC is carcinogenic. Exposure to VC has been associated with a rare cancer, liver angiosarcoma, in workers, and with tumors of the liver, lungs, mammary glands and the nervous system in animals. The state ambient air quality standard reflects the limit of detection for VC in ambient air when the standard was promulgated, in 1978. By 1990, when state staff prepared the technical support document for identifying VC as a TAC, VC had not been detected in ambient air at any of the samplers in CARB's TAC monitoring network, although ambient hot spot sampling had detected VC at levels up to 150 percent of the standard. VC is primarily of concern as a carcinogenic TAC at hot spots. It is regulated as a TAC to allow implementation of health-protective control measures at levels below the ambient standard.[2]

(i) Hydrogen Sulfide (H_2S)

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

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[2] *CARB, Proposed Identification of Vinyl Chloride as a Toxic Air Contaminant. Staff Report/Executive Summary, October 1990, www.arb.ca.gov/toxics/id/summary/vinyl.pdf, accessed March 5, 2014.*

(2) Toxic Air Contaminants (TACs)

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

The California Air Resources Board (CARB) and the Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a TAC in California. The complete list of such substances is located at www.arb.ca.gov/toxics/id/taclist.htm.

Diesel PM (DPM), which is emitted in the exhaust from diesel engines, was listed by the State as a TAC in 1998. DPM has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. DPM consists of fine particles (fine particles have a diameter less than 2.5 µm), including a subgroup of ultrafine particles (ultrafine particles have a diameter less than 0.1 µm). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

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

To provide a perspective on the contribution that DPM has on the overall Statewide average ambient air toxics potential cancer risk, CARB evaluated risks from specific

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[3] *CARB, Diesel and Health Research, www.arb.ca.gov/research/diesel/diesel-health.htm, accessed March 5, 2014.*

[4] *CARB, Fact Sheet: Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, March 2008, www.arb.ca.gov/ch/communities/ra/westoakland/documents/factsheet0308.pdf, accessed March 5, 2014.*

compounds using data from CARB's ambient monitoring network. CARB maintains a 21-site air toxics monitoring network which measures outdoor ambient concentration levels of approximately 60 air toxics. CARB has determined that, of the top ten inhalation risk contributors, DPM contributes approximately 71 percent of the total potential cancer risk.[5]

c. Regulatory Framework

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

(1) Criteria Pollutants

(a) Federal

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments in 1990. At the federal level, the USEPA is responsible for implementation of some portions of the CAA (e.g., certain mobile source and other requirements). Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

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

Title I provisions are implemented for the purpose of attaining NAAQS. Table IV.B-1 on page IV.B-3 shows the NAAQS currently in effect for each criteria pollutant and their relative attainment status. The CAA provides deadlines for meeting the NAAQS within the Air Basin including the following: (1) 1-hour O_3 by the year 2010; (2) 8-hour O_3 by the year 2024; (3) PM_{10} by the year 2006; and (4) $PM_{2.5}$ by the year 2015. Although the deadline for PM_{10} has passed, the Air Basin met the PM_{10} standard in 2006 at all stations except for western Riverside. In addition, the only air monitoring station that is currently exceeding or projected to exceed the 24-hour $PM_{2.5}$ standard is within western Riverside.[6] Los Angeles

[5] *SCAQMD 2000. "Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-II)." Draft Report. South Coast Air Quality Management District, Diamond Bar, California. Executive summary.*

[6] *South Coast Air Quality Management District, 2012 AQMP.*

County exceeds the lead NAAQS as the result of a large lead-acid battery recycling facility near downtown Los Angeles. As demonstrated in the 2012 Lead State Implementation Plan for Los Angeles County, Los Angeles County will meet the NAAQS for lead by the year 2016.

Nonattainment designations are categorized into seven levels of severity: (1) basic; (2) marginal; (3) moderate; (4) serious; (5) severe-15; (6) severe-17; and (7) extreme.[7] On June 11, 2007, the USEPA reclassified the Air Basin as a federal "attainment" area for CO and approved the Air Basin's CO maintenance plan.[8] The Air Basin fails to meet national standards for O_3, PM_{10}, and $PM_{2.5}$ and, therefore, is considered a federal "non-attainment" area for these pollutants. In addition, Los Angeles County fails to meet the national standard for lead and, therefore, is considered a federal "non-attainment" area for lead.

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

(b) State

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (Cal EPA), is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, the CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. Table IV.B-1 on page IV.B-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.B-1,

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[7] *The "-15" and "-17" designations reflect the number of years within which attainment must be achieved.*

[8] *"Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California, Final Rule." Federal Register 72 (11 May 2007):26718-26721.*

the CAAQS include more stringent standards than the national ambient air quality standards.

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

(c) Regional

(i) South Coast Air Quality Management District

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

In order to meet the CAAQS and NAAQS, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs). The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including SCAG's 2012 Regional Transportation Plan/Sustainable Communities Strategy (2012–2035 RTP/SCS) and updated emission inventory methodologies for various source categories. The 2012 AQMP also includes the new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches.

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

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

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

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 2011 on-road vehicle emission factors; (2) background CO concentrations; (3) localized significance thresholds; (4) mitigation measures and control efficiencies; (5) mobile source toxics analysis; (6) off-road mobile source emission factors; (7) $PM_{2.5}$ significance thresholds and calculation methodology; and (8) updated SCAQMD Air Quality Significance Thresholds. The SCAQMD also recommends using approved models to calculate emissions from land use projects, such as CalEEMod. These recommendations were followed in the preparation of this analysis.

The SCAQMD has also adopted land use planning guidelines in the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* (May 2005), which considers impacts to sensitive receptors from facilities that emit TAC emissions. SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity of

freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

(ii) Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and State air quality requirements, including the Transportation Conformity Rule and other applicable federal, State, and air district laws and regulations. As the federally designated Metropolitan Planning Organization (MPO) for the six-county Southern California region, SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and State air quality plans to attain the NAAQS. In addition, SCAG is a co-producer, with the SCAQMD, of the transportation strategy and transportation control measure sections of the AQMP for the Basin. With regard to future growth, SCAG has prepared the Regional Transportation Plan (RTP) which provides population, housing, and employment projections for cities under its jurisdiction. The growth projections in the RTP are based on projections originating under County and City General Plans. The RTP growth projections are used in the preparation of the air quality forecasts and consistency analysis included in the SCAQMD's AQMP.

(d) Local

(i) County of Los Angeles General Plan

Local jurisdictions, such as the County of Los Angeles, have the authority and responsibility to reduce air pollution through their police power and decision-making authority. Specifically, the County is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. Refer to Section IV.H, Land Use, of this Draft EIR for a listing of the General Plan policies that pertain to air quality.

(2) Toxic Air Contaminants

The California Air Toxics Program (see www.arb.ca.gov/toxics/toxics.htm) was established in 1983, when the California Legislature adopted AB 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and the

Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a toxic air contaminant (TAC) in California. Since inception of the program, a number of such substances have been listed (see www.arb.ca.gov/toxics/id/taclist.htm). In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants (HAPs) as TACs.

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

In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size, with the largest operators beginning compliance in 2014.[9]

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

SCAQMD has adopted two rules to limit cancer and noncancer 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.

[9] *CARB, In-Use Off-Road Diesel Vehicle Regulation, www.arb.ca.gov/msprog/ordiesel/ordiesel.htm, last reviewed September 13, 2013, accessed March 5, 2014.*

Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

d. Existing Air Quality 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 all affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential.

The greatest air pollution impacts throughout the Air Basin occur 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. Ozone 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 national standards for ozone, PM_{10}, and $PM_{2.5}$. In addition, Los Angeles County still fails to meet the national standard for lead.

The SCAQMD has released an Air Basin-wide air toxics study (MATES III, Multiple Air Toxics Exposure Study, September 2008). The MATES III Study represents one of the most comprehensive air toxics studies ever conducted in an urban environment. The Study was aimed at estimating the cancer risk from toxic air emissions throughout the Air Basin by conducting a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize health risks for those living in the Air Basin. The Study concluded that the average carcinogenic risk from air pollution in the Air Basin is approximately 1,200 in one million over a 70-year duration. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors. Approximately 85 percent of the risk is attributed to diesel particulate emissions, approximately 10 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately five percent of all

carcinogenic risk is attributed to stationary sources (which include industries and other certain businesses, such as dry cleaners and chrome plating operations).

As part of the MATES III Study, the SCAQMD prepared a series of maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps' estimates represent the number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years) in parts of the area. The MATES III 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 251 to 3,692 cancers per million over a 70-year duration.[10] Generally, the risk from air toxics is lower near the coastline and it increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports).

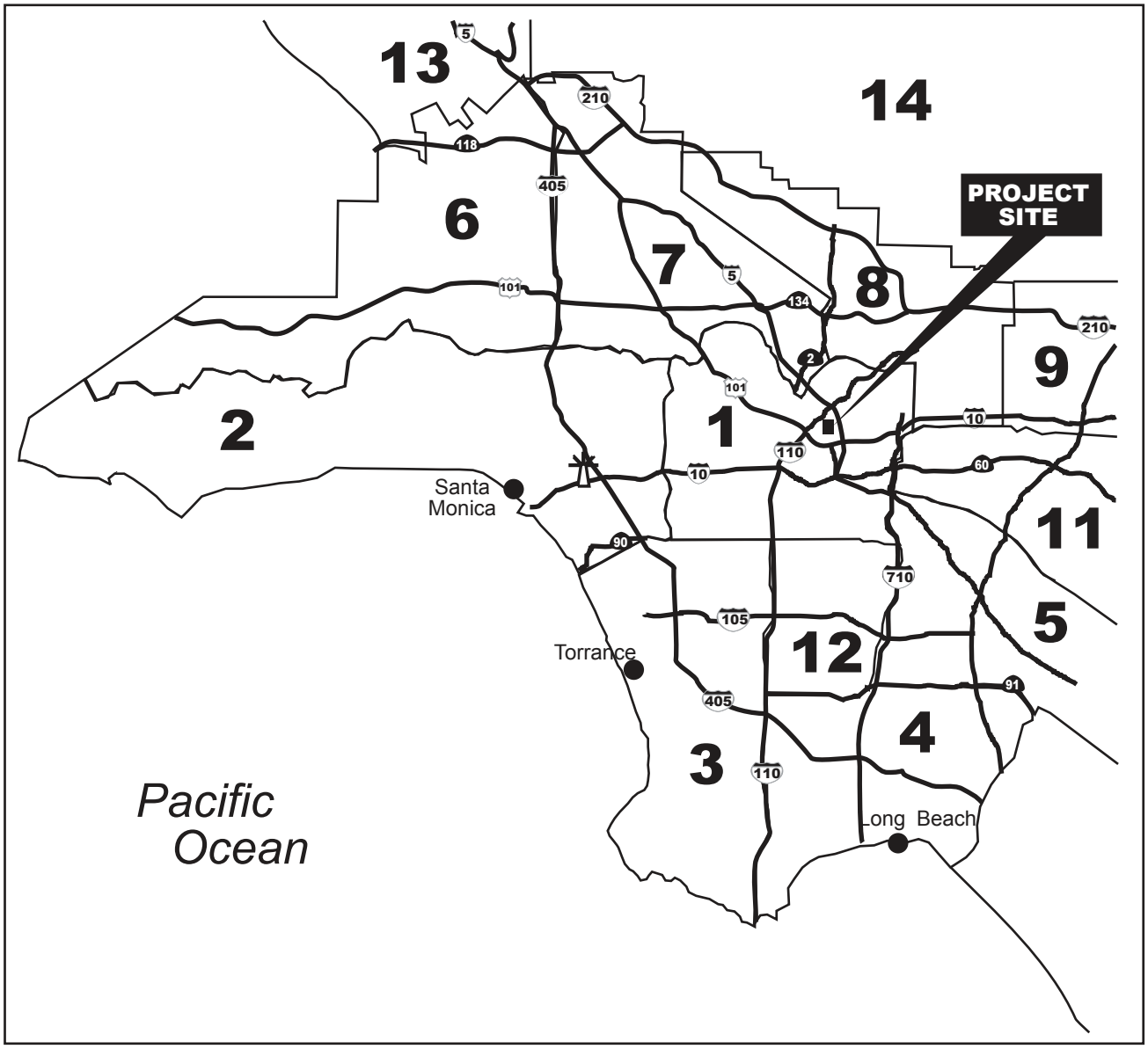
(2) Local Air Quality

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

(a) Existing Pollutant Levels at Nearby Monitoring Stations

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin and has divided the Air Basin into 27 source receptor areas (SRAs) in which 31 monitoring stations operate. Figure IV.B-1 on page IV.B-16 shows the locations of the SRAs located in central 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 6.9 miles southeast of the Project Site. Criteria pollutants monitored at this station include PM_{10}, $PM_{2.5}$, O_3, CO, NO_2, lead, and sulfate. Table IV.B-2 on page IV.B-17 identifies the national and State ambient air quality standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured in SRA 1 through the period of 2010 to 2012.

[10] *SCAQMD, Multiple Air Toxics Exposure Study III Model Estimated Carcinogenic Risk, www2.aqmd.gov/webappl/matesiii, accessed March 5, 2014.*



Legend

Northwest Coastal Monitoring Station

Air Monitoring Areas in Los Angeles County	
1. Central Los Angeles	9. East San Gabriel Valley
2. Northwest Coastal	10. Pomona/Walnut Valley
3. Southwest Coastal	11. South San Gabriel Valley
4. South Coastal	12. South Central Los Angeles
5. Southeast Los Angeles County	13. Santa Clarita Valley
6. West San Fernando Valley	14. Antelope Valley
7. East San Fernando Valley	15. San Gabriel Mountains
8. West San Gabriel Valley	

NORTH

0 9

Miles

matrix environmental

Figure IV.B-1
SCAQMD Source Receptor Areas

Source: South Coast Air Quality Management District Air Monitoring Areas Map, 1989.

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

Pollutant	Year		
	2010	2011	2012
Ozone			
Maximum 1-hour Concentration (ppm)	0.098	0.087	0.093
Days exceeding NAAQS (0.12 ppm)	0	0	0
Days exceeding CAAQS (0.09 ppm)	1	0	0
Maximum 8-hour Concentration ppm)	0.080	0.065	0.077
Days exceeding NAAQS (0.075 ppm)	1	0	1
Days exceeding CAAQS (0.07 ppm)	4	0	2
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour Concentration (µg/m^3)	42	53	80
Days exceeding NAAQS (150 µg/m^3)	0	0	0
Days exceeding CAAQS (50 µg/m^3)	0	1	4
Annual Arithmetic Mean (µg/m3)	27	29	30
Does Measured AAM exceed NAAQS (50 µg/m^3)?	No	No	No
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)	39	49	59
Days exceeding NAAQS (35 µg/m^3)	2	4	4
Annual Arithmetic Mean (µg/m^3)	12	13	13
Does measured AAM exceed NAAQS (15 µg/m^3)?	No	No	No
Does measured AAM exceed CAAQS (12 µg/m^3)?	No	No	No
Carbon Monoxide (CO)			
Maximum 1-hour Concentration (ppm)	3	3	3
Days exceeding NAAQS (35.0 ppm)	0	0	0
Days exceeding CAAQS (20.0 ppm)	0	0	0
Maximum 8-hour Concentration (ppm)	2.3	2.4	1.9
Days exceeding NAAQS and CAAQS (9 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour Concentration (ppm)	0.09	0.11	0.08
Days exceeding CAAQS (0.25 ppm)	0	0	0
Annual Arithmetic Mean (ppm)	0.025	0.023	0.025
Does measured AAM exceed NAAQS (0.0534 ppm)?	No	No	No
Does measured AAM exceed CAAQS (0.03 ppm)?	No	No	No
Sulfur Dioxide (SO_2)			
Maximum 1-hour Concentration (ppm)	0.01	0.01	0.01
Days exceeding CAAQS (0.25 ppm)	0	0	0
Maximum 24-hour concentration (ppm)	0.003	0.003	0.003

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

Pollutant	Year		
	2010	2011	2012
Days exceeding CAAQS (0.04 ppm)	0	0	0
Days exceeding NAAQS (0.14 ppm)	0	0	0
Annual Arithmetic Mean (ppm)	0.001	0.001	0.001
Does measured AAM exceed NAAQS (0.030 ppm)?	No	No	No
Lead			
Maximum 30-day Average Concentration (µg/m^3)	0.02	0.01	---
Does measured concentration exceed NAAQS (1.5 µg/m^3)	No	No	
Maximum Calendar Quarter Concentration (µg/m^3)	0.01	0.01	---
Does measured concentration exceed CAAQS (1.5 µg/m^3)	No	No	
Sulfate			
Maximum 24-hour Concentration (µg/m^3)	9	8	---
Does measured concentration exceed CAAQS (25 µg/m^3)	No	No	

ppm = parts per million by volume
µg/m^3 = micrograms per cubic meter
AAM = annual arithmetic mean
— = not available
Source: South Coast Air Quality Management District Ambient Monitoring Data, website: www.aqmd.gov/smog/historicaldata.htm, last updated October 4, 2013, accessed March 5, 2014.

(b) Existing Health Risk in the Surrounding Area

As shown above in Figure IV.B-2 on page IV.B-19, based on the Mates III Study, the Project Site is located within a cancer risk zone of 940 in one million over a 70-year duration. The cancer risk in this area is predominately related to nearby sources of diesel particulate (e.g., the Hollywood Freeway (US-101)). In general, the risk at the Project Site is comparable with other urbanized areas in the central Los Angeles area that are near large diesel sources (e.g., freeways, airports, and ports).

(c) Surrounding Uses

As shown in Figure IV.B-3 on page IV.B-20, the area surrounding the Project Site includes a mix of residential uses and open space. Specifically, the Project Site is bounded by 4-story multi-family residential buildings and open space to the north, single- and multi-family residential uses to the east and south, and Cahuenga Boulevard to the west. The majority of these uses are separated from the developed areas of the Project Site by

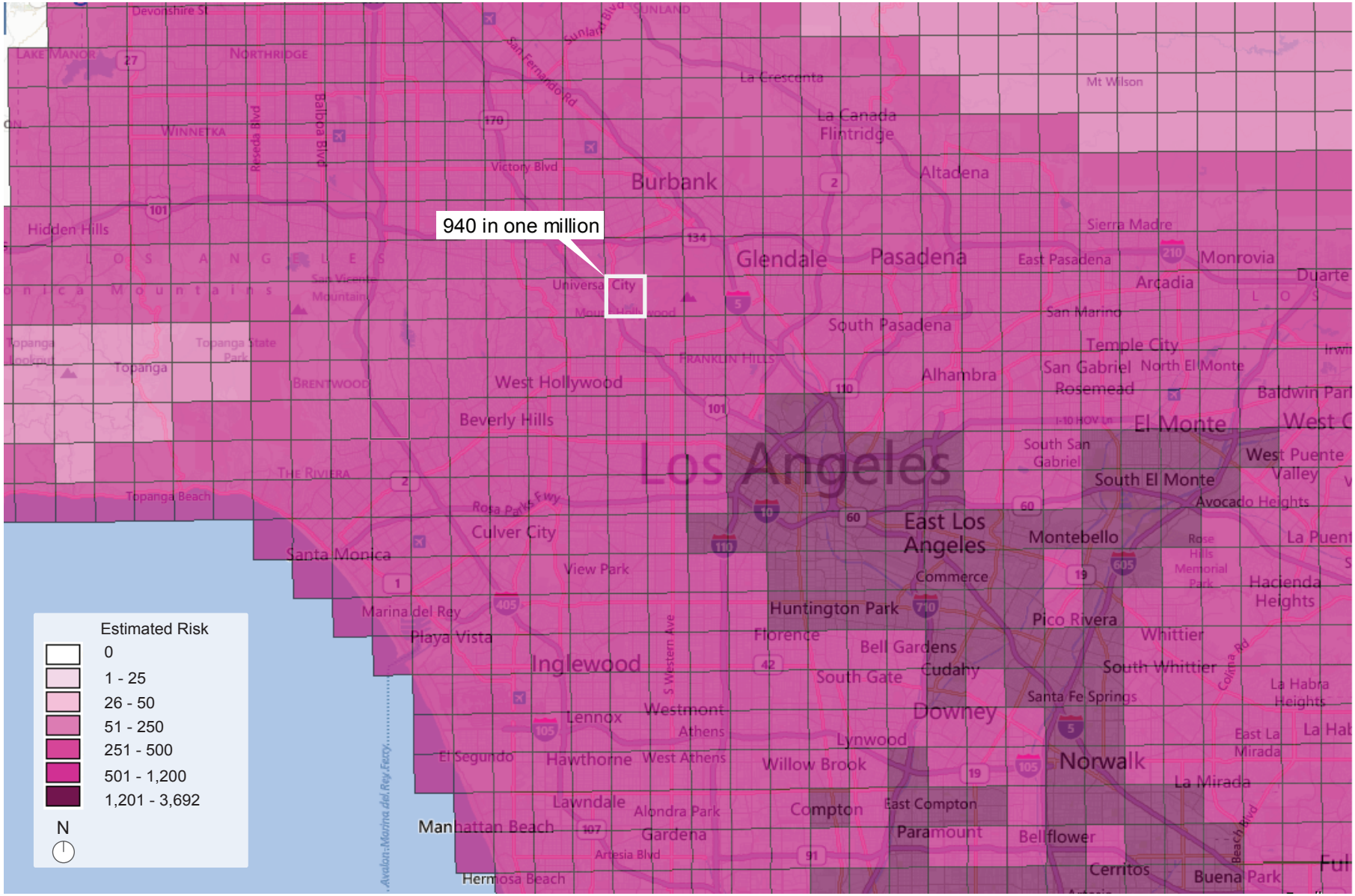


Figure IV.B-2
MATES III Total Cancer Risk for Project Area

Source: South Coast AQMD, 2013.

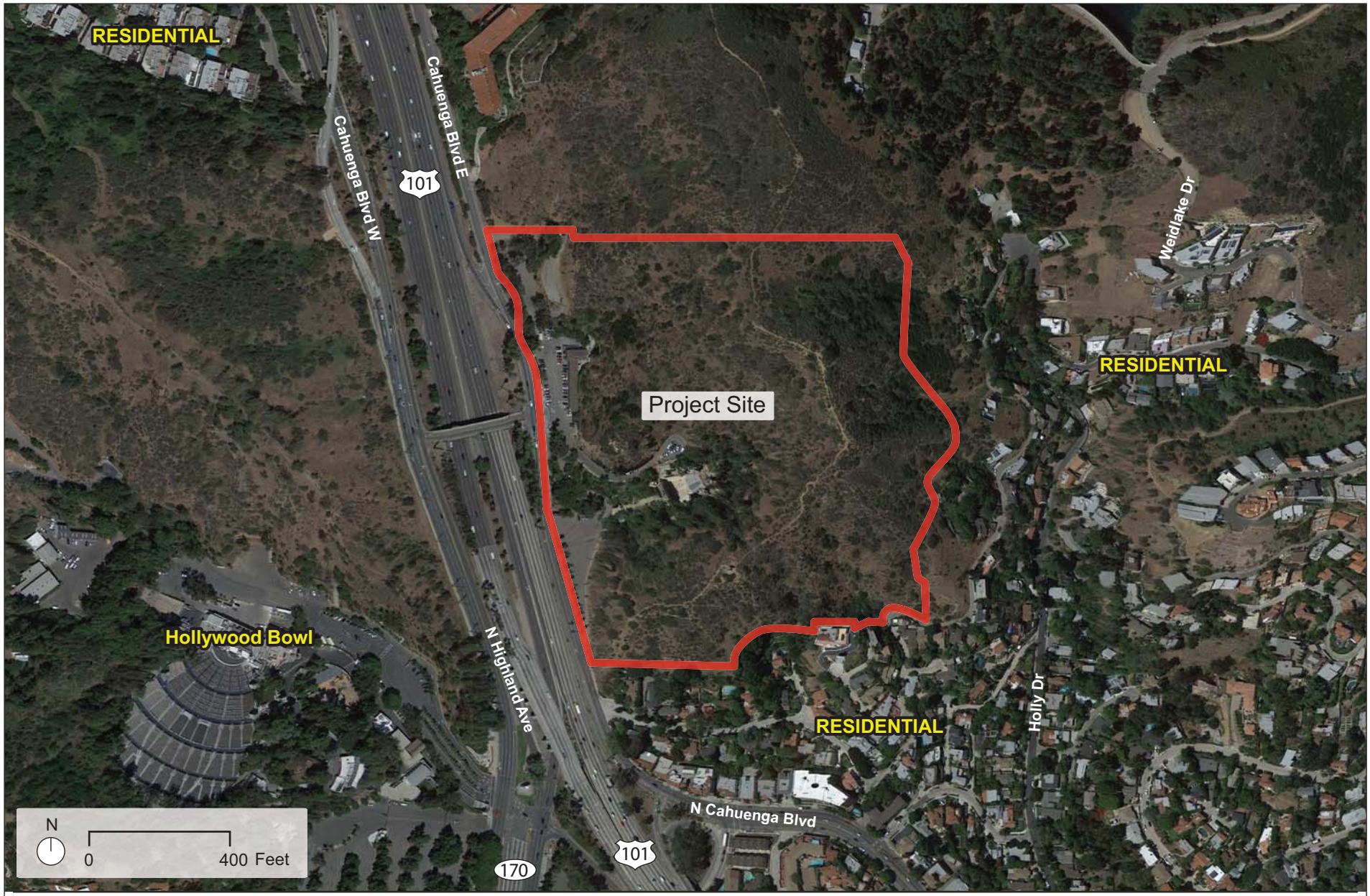


Figure IV.B-3
Air Quality Sensitive Receptors

Source: Google Earth Pro, 2014.

open space areas and the steep topography formed by the canyon setting of the Project Site. The Hollywood Bowl, also a County-owned historically significant cultural destination, is located southwest of the Project Site across Cahuenga Boulevard and the Hollywood Freeway.

Some population groups including children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to air pollution than others. Sensitive land uses in the Project vicinity include residential uses discussed above and are shown in Figure IV.B-3 on page IV.B-20.

(d) Existing Project Site Emissions

The approximately 32-acre Project Site currently includes the open-air 1,196-seat Amphitheatre with support spaces (i.e., dressing rooms, performer restrooms, green room) below; an 860-square-foot projection booth and control room located above the Amphitheatre seating; an indoor venue located below the Amphitheatre providing approximately 87 seats referred to as [Inside] the Ford; a two-story, approximately 320-square-foot concessions building; a 365-square-foot box office; a plaza referred to as Edison Plaza and a picnic area; surface parking areas; and a former 10,500-square-foot motel building currently used as staff offices for the Ford Theatre Foundation, Los Angeles County Arts Commission, and the Los Angeles Philharmonic. Other facility support spaces such as storage and maintenance areas and restrooms are also located throughout the Project Site. The existing buildings on the Project Site comprise a total of approximately 35,811 square feet while the outdoor plaza areas comprise approximately 3,580 square feet.

Existing operations generate air pollutant emissions from a variety of sources. Mobile source emissions are generated by motor vehicle trips to and from the Project Site. Area source emissions are generated by maintenance equipment, landscape equipment, and use of products that contain solvents. An estimate of these emissions is presented in Table IV.B-3 on page IV.B-22.

3. Environmental Impacts

a. Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, Project impacts with regard to air quality would be significant if the Project would:

- Conflict with or obstruct implementation of the applicable air quality plan;

Table IV.B-3
Existing Project Site Regional Operational Emissions
(pounds per day)

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	4	<1	<1	<1	<1	<1
Mobile	6	16	63	<1	8	2
Total Existing Emissions	**10**	**16**	**63**	**<1**	**8**	**2**

Source: Matrix Environmental, 2014.

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

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

- Create objectionable odors affecting a substantial number of people.

(1) Construction Emissions

In the context of the questions above from Appendix G of the CEQA Guidelines, the specific thresholds of significance for construction air quality emissions are based on the thresholds set forth by the SCAQMD. Specifically, based on criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*,[11] the Project would 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 following SCAQMD prescribed threshold levels: (1) 100 pounds per day for NO_X; (2) 75 pounds a day for VOC; (3) 150 pounds per day for PM_{10} or SO_X; (4) 55 pounds per day for $PM_{2.5}$; and (5) 550 pounds per day for CO.

- Maximum on-site daily localized emissions exceed the Localized Significance Thresholds (LST), resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 ppm [23,000 µg/m^3] over a 1-hour period or 9.0 ppm [10,350 µg/m^3]

[11] *SCAQMD, CEQA Air Quality Handbook, www.aqmd.gov/ceqa/handbook/signthres.pdf, accessed March 7, 2014.*

averaged over an 8-hour period) and NO_2 (0.18 ppm [338.4 µg/m^3] over a 1-hour period, 0.1 ppm [188 µg/m^3] over a three-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm [56.4 µg/m^3] averaged over an annual period).

- Maximum on-site localized PM_{10} or $PM_{2.5}$ emissions during construction exceed the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the site to exceed the incremental 24-hr threshold of 10.4 µg/m^3 or 1.0 µg/m^3 PM_{10} averaged over an annual period.

(2) Operational Emissions

In the context of the questions above from Appendix G of the CEQA Guidelines, the specific thresholds of significance for operation air quality emissions are based on the thresholds set forth by the SCAQMD. Specifically, based on criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*,[12] the Project would have a significant impact on air quality from project operations if any of the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 55 pounds per day for NO_X; (2) 55 pounds a day for VOC; (3) 150 pounds per day for PM_{10} or SO_X; (4) 55 pounds per day for $PM_{2.5}$; and (5) 550 pounds per day for CO.[13]

- 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 parts per million (ppm) over a 1-hour period or 9.0 ppm averaged over an 8-hour period) and NO_2 (0.18 ppm over a 1-hour period, 0.1 ppm over a 3-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm averaged over an annual period).[14]

- Maximum on-site localized operational PM_{10} and $PM_{2.5}$ emissions exceed the incremental 24-hr threshold of 2.5 µg/m^3 or 1.0 µg/m^3 PM_{10} averaged over an annual period.[15]

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[12] *SCAQMD, CEQA Air Quality Handbook, www.aqmd.gov/ceqa/handbook/signthres.pdf, accessed March 7, 2014.*

[13] *Ibid.*

[14] *SCAQMD, LST Methodology, www.aqmd.gov/ceqa/handbook/lst/Method_final.pdf, revised July 2008, accessed March 5, 2014.*

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

- 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).

(3) Toxic Air Contaminants

In the context of the questions above from Appendix G of the CEQA Guidelines, the specific thresholds of significance for toxic air contaminant impacts are based on the thresholds set forth by the SCAQMD. Specifically, based on criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*,[16] the Project would have a significant impact on air quality from toxic air contaminants if any of the following would occur:[17]

- The Project emits 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.[18] For projects with a maximum incremental cancer risk between 1 in one million and 10 in one million, a project would result in a significant impact if the cancer burden exceeds 0.5 excess cancer cases.

- Hazardous materials associated with on-site stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety.

- The Project would be occupied primarily by sensitive individuals within 0.25 mile of any existing facility that emits air toxic contaminants which could result in a health risk for pollutants identified in District Rule 1401.

(4) 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*,[19] the following criteria were used to evaluate the

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[16] *SCAQMD, CEQA Air Quality Handbook, www.aqmd.gov/ceqa/handbook/signthres.pdf, accessed March 7, 2014.*

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

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

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

Project's consistency with SCAQMD and SCAG regional plans and policies, including the AQMP:

- Will the Project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations;
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?
- Will the Project exceed the assumptions utilized in preparing the AQMP?
  - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
  - Does the Project include air quality mitigation measures; or
  - To what extent is Project development consistent with the AQMP land use policies?
- The Project's impacts with respect to these criteria are discussed to assess the consistency with the SCAQMD's AQMP and SCAG regional plans and policies.

b. Air Quality Analysis Methodology

This analysis focuses on the potential change in the air quality environment due to implementation of the Project. Air pollutant emissions associated with the Project would result from construction and operation of the proposed development. Specific analysis methodologies are discussed below.

(1) Construction Emissions Methodology

(a) Regional

Daily regional emissions during construction were forecasted by assuming a conservative start date (i.e., assuming all construction would occur at the earliest feasible date) and applying the mobile-source and fugitive dust emissions factors derived from the SCAQMD recommended California Emissions Estimator Model (CalEEMod). Details of the modeling assumptions and emission factors are provided in Appendix C of this Draft EIR. The calculations of the emissions generated during Project construction activities reflect the types and quantities of construction equipment that would be used to remove existing pavement; grade and excavate the Project Site; construct the proposed buildings and

related improvements; and plant new landscaping within the Project Site. Construction tasks were aggregated to reflect overlapping tasks and identify the maximum construction emissions occurring over the course of Project construction.

(b) Localized

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's LST methodology, which uses on-site mass emissions rate look-up tables and Project-specific modeling, where appropriate.[20] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X, CO, PM_{10}, and $PM_{2.5}$. SCAQMD does not provide an LST for SO_2, since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant. Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD LST for VOCs. Due to the role VOCs play in ozone 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. For PM_{10} and $PM_{2.5}$, LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust. The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. SCAQMD provides LST mass rate look-up tables for projects with active construction areas that are less than or equal to 5 acres. For projects that exceed 5 acres, the 5-acre LST look-up values can be used as a screening tool to determine which pollutants require detailed analysis.[21] This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and would over predict potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). If the project exceeds the LST look-up values, then the SCAQMD recommends that project specific air quality modeling be performed.

[20] *SCAQMD, LST Methodology Appendix C-Mass Rate LST Look-up Table, www.aqmd.gov/ceqa/handbook/LST/appC.pdf, revised October 2009, accessed March 7, 2014.*

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

(2) Operational Emissions Methodology

(a) Regional

Analysis of the Project's likely impact on regional air quality during long-term Project operations (i.e., after construction is complete) looks at three types of sources: (1) mobile; (2) area; and (3) energy. Mobile source emissions are generated by the increase in motor vehicle trips to and from the Project Site associated with operation of the Project. Area source emissions are generated by, among other things, landscape equipment, an emergency generator, 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).

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

(b) Localized

The general procedure for evaluating localized impacts from project operations is to evaluate any new or modified stationary combustion sources, and to study the likely effect on CO concentrations of induced traffic at nearby intersections.

Effects related to the operation of stationary-source combustion equipment associated with the Project, and associated PM_{10} emissions, are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) as necessary. The screening-level analysis consists first of reviewing the Project and related projects to identify any new or modified stationary-source combustion equipment. Then, if such equipment is identified, the potential significance of its impact is evaluated qualitatively in light of applicable regulations and operating parameters and a comparison to SCAQMD LSTs. If the screening level evaluation does not rule out significant impacts, a more detailed analysis is conducted. For the detailed analysis, downwind sensitive receptor locations are identified, and site-specific dispersion modeling is conducted to

[22] *SCAQMD Air Quality Significance Thresholds (Rev. March 2011), www.aqmd.gov/ceqa/handbook/signthres.pdf. 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.).*

estimate project impacts. The detailed analysis is conducted using EPA's preferred regulatory dispersion model (AERMOD).

Localized CO concentrations are evaluated using a screening method based on the California Line Source (CALINE4) microscale dispersion model, developed by Caltrans, in combination with EMFAC 2011 emission factors. The screening method enables the user to manually calculate local CO concentrations resulting from motor vehicles using the Project's Transportation Study.[23] If the screening method does not rule out significant impacts for an intersection, then detailed analysis using CALINE4 is conducted. In traffic studies, the term "level of service" (LOS) describes traffic performance at intersections or along roadway segments, and is generally expressed as a letter grade (A through F, with an F grade meaning the worst-flowing traffic). Traffic researchers and planning agencies generally assign LOS ratings to intersections based on the ratio of traffic volume (or demand) to capacity (V/C). Lower V/C ratios correspond to better performance (freer-flowing traffic). SCAQMD suggests conducting a CO hotspots analysis according to a Caltrans protocol for any intersection where a project would worsen the LOS by a level to any level below C, and for any intersection rated D or worse where the project would increase the V/C ratio by two percent or more. Projected CO concentrations of the Project were compared to ambient air quality standards and incremental increase thresholds to determine whether CO impacts from operation would be significant.

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

Potential TAC impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling), as necessary. The screening-level 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. Based on this methodology, it was determined that a screening-level analysis was sufficient to address construction and operation of the Project.

(4) Odor Impacts (Construction and Operations)

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) as necessary. The screening-level analysis consists of reviewing the Project to identify new or modified odor

[23] *Gibson Transportation Consulting, Inc., Transportation Study for the Ford Theatres Project, April 2014. See Appendix L of this Draft EIR.*

sources. If the qualitative evaluation does not rule out significant impacts from a new source, or modification of an existing odor source, a more detailed analysis is conducted. If so, then downwind sensitive receptor locations are identified, and site-specific dispersion modeling is conducted to estimate Project impacts. For this Project, the screening-level analysis is sufficient.

(5) Existing Conditions Analysis

An analysis of future conditions when the Project becomes operational in 2020 would contribute to a meaningful assessment of the Project's impacts. However, in order to provide for full disclosure of potential impacts, this analysis also addresses existing conditions without the Project compared to existing conditions with the Project, assuming emission factors for Project buildout based on the time of the Notice of Preparation (NOP). All analyses were conducted consistent with the methodologies (e.g., same models and calculation procedures) discussed above for Project-specific impacts.

c. Project Design Features

No specific project design features are proposed with regard to air quality. The Project would incorporate certain features to support and promote environmental sustainability as described in Section II, Project Description, of this Draft EIR.

d. Analysis of Project Impacts

(1) Construction

(a) Regional Construction Impacts

As described in Section II, Project Description, of this Draft EIR, Project construction is anticipated to occur over several phases and may be completed as early as 2020. Construction activities for the Project would include demolition of several existing facilities, grading and excavation, and construction of new structures and related infrastructures. It is estimated that the Project would require approximately 107,094 cubic yards of soil export.

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 a building, paving operations and the application of architectural coatings (e.g., paints) and other building materials 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.

In order to provide a conservative analysis, it was assumed that all construction activities would be completed within the minimum timeframe anticipated for construction rather than in phases, which provides for the maximum overlap of construction components within the Project's overall development period. Additional details of construction activities (i.e., demolition, site preparation/excavation, and building construction/finishing) and the equipment that would be used during Project construction are provided in Appendix C of this Draft EIR.

The emissions levels in Table IV.B-4 on page IV.B-31 represent the highest daily emissions projected to occur during construction. As presented in Table IV.B-4, construction-related daily maximum regional construction emissions 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.

It should be noted that the emissions estimates presented in Table IV.B-4 are conservative because they do not take into account recently promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles which will further reduce emissions. Thus, actual emissions from the Project would be less than those presented above.

(b) Localized Impacts from On-Site Construction Activities

A conservative estimate of maximum on-site daily emissions for NO_X, PM_{10}, $PM_{2.5}$, and CO was compiled for construction activity and compared to the applicable screening thresholds based on construction site acreage and the distance to the closest sensitive receptor. The localized construction air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look-up tables provided by the SCAQMD were used to determine localized construction emissions thresholds for the Project.[24] 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

[24] *SCAQMD, LST Methodology Appendix C-Mass Rate LST Look-up Table, www.aqmd.gov/ceqa/handbook/LST/appC.pdf, revised October 2009, accessed March 7, 2014.*

Table IV.B-4
Estimate of Maximum Regional Project Construction Emissions[a]
(pounds per day)

Overlapping Construction Activity	VOC[b]	NO_X	CO	SO_X	PM_{10}[c]	$PM_{2.5}$[c]
Overlap of Demolition, Grading, Excavation, Shoring, and Exterior Improvements	9	97	72	<1	13	7
Overlap of Excavation, Grading, Shoring, Exterior Improvements, and Building Construction	39	91	72	<1	11	7
Maximum Overlapping Construction Emissions	**39**	**97**	**72**	**<1**	**13**	**7**
SCAQMD Daily Significance Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Over/(Under)	**(36)**	**(3)**	**(478)**	**(149)**	**(137)**	**(48)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

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

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

[c] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

Source: Matrix Environmental, 2014.

quality monitoring data (2010–2012) for the Project area presented in Table IV.B-2 on page IV.B-17. Although the trend shown in Table IV.B-2 demonstrates that ambient air quality is improving in the area, the localized construction emissions analysis conservatively did not apply a reduction in background pollutant concentrations for subsequent years of construction. 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 (2010–2012).

The maximum daily localized emissions from Project construction and LSTs are presented in Table IV.B-5 on page IV.B-32. As presented in Table IV.B-5, maximum localized construction emissions for off-site sensitive receptors would not exceed any of the SCAQMD-recommended localized screening thresholds. Therefore, localized construction emissions resulting from the Project would result in a less-than-significant air quality impact.

Table IV.B-5
Estimate of Maximum Localized Project Construction Emissions
(pounds per day)

Overlapping Construction Activity	NO_X	CO	PM_{10}[a]	$PM_{2.5}$[a]
Overlap of Demolition, Grading, Excavation, Shoring, and Exterior Improvements	73	46	10	6
Overlap of Excavation, Grading, Shoring, Exterior Improvements, and Building Construction	69	47	8	6
Maximum Overlapping Daily Localized Emissions	73	47	10	6
SCAQMD Localized Significance Thresholds[b]	89	3,030	69	18
Exceed Threshold?	**No**	**No**	**No**	**No**

[a] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

[b] *Maximum active construction activities would occur on approximately 5 acres at a distance of approximately 100 meters from sensitive land uses (the shortest distance to residential receptors along Cahuenga Terrace). Therefore, potential localized construction impacts were evaluated using SCAQMD's LSTs for Source Receptor Area 1 (5 acres at a distance of 100 meters).*

Source: Matrix Environmental, 2014.

(c) Toxic Air Contaminants

The greatest potential for TAC emissions during construction would be from diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Because the construction schedule estimates that the phases which require the most heavy-duty diesel vehicle usage, such as site grading/excavation, would last for a much shorter duration (e.g., approximately six months), construction of the Project would not result in a substantial, long-term (i.e., 70-year) source of TAC emissions. Additionally, the SCAQMD CEQA guidance does not require a health risk assessment for short-term construction emissions. It is therefore not meaningful to evaluate long-term cancer impacts from construction activities which occur over 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.

(d) Odors

Construction operations, including asphalt paving operations, may produce perceptible odors. Dust and diesel odors are typical near construction sites. Large

diesel-powered vehicles are frequently present during construction activities. Diesel exhaust from vehicles is not typically a health concern unless vehicles operate or idle in close proximity to structural air intakes, pedestrian areas, or sensitive receptors. The operation of diesel-powered construction equipment could generate nuisance diesel odors at nearby receptors.

In accordance with Sections 2485 in Title 13 of the California Code of Regulations (CCR), the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. With regards to the operation of any stationary, diesel-fueled, compression-ignition engines, Section 93115 in Title 17 of the CCR specifies fuel and fuel additive requirements and emission standards.[25] Compliance with these requirements would minimize the potential nuisance of diesel odors during construction to a less-than-significant level.

Other potential sources that may emit odors during construction activities include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of VOC content from architectural coatings and solvents. As a result of the Project's mandatory compliance with applicable SCAQMD rules and regulations, construction activities and materials would result in less-than-significant impacts with regard to odors.

(2) Operational Impacts

(a) Regional Operational Impacts

As discussed above, SCAQMD's CalEEMod was used to calculate regional mobile source emissions, on-road fugitive dust, and emissions from architectural coatings, landscape equipment, and energy use. Diesel Emergency generator emissions were calculated using USEPA's Compilation of Air Pollutant Emission Factors (AP-42) and SCAQMD BACT requirements.

As shown in Table IV.B-6 on page IV.B-34, regional emissions resulting from operation of the Project are not expected to exceed any of the SCAQMD's daily regional operational thresholds. Therefore, air quality impacts from Project operational emissions would be less than significant.

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[25] *The CARB adopts airborne toxic control measures (ATCMs) to reduce emissions of TACs. On February 26, 2004, the CARB adopted an ATCM for stationary compression-ignition (CI) engines (17 CCR 93115) to control diesel particulate matter, which was declared a TAC in 1998. The ATCM applies to all stationary diesel-fueled engines greater than 50 brake-horsepower installed before January 1, 2005, and all new stationary diesel engines installed on or after January 1, 2005. The purpose of this ATCM is to protect public health by reducing emissions of diesel PM, with a goal of reducing overall diesel PM in 2020 from this source category by 80 percent from 2002 baseline emissions.*

Table IV.B-6
Project Regional Operational Emissions—Buildout (2020)
(pounds per day)

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project						
Area	9	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile	6	17	66	<1	14	4
Total Project Emissions	15	18	67	<1	14	4
No Project						
Area	4	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	<1	<1	<1	<1	<1
Mobile	4	10	40	<1	8	2
Total No Project Emissions	8	10	40	<1	8	2
Net Emission	**7**	**8**	**27**	**<1**	**6**	**2**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	**(48)**	**(47)**	**(523)**	**(150)**	**(144)**	**(53)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Matrix Environmental, 2014.

An analysis of daily operational emissions of existing conditions without the Project versus with the Project (2014) was also conducted. The results of these calculations and associated SCAQMD thresholds are presented in Table IV.B-7 on page IV.B-35. As shown in Table IV.B-7, the net overall operational emissions associated with the Project under existing conditions (2014) would be higher than the estimated emissions at Project build-out (2020) provided in Table IV.B-6. This increase is exclusively a function of the change in default CalEEMod emission factors from 2020 to 2014 (i.e., vehicular fleet mix is cleaner in subsequent years as a result of cleaner newer vehicles). As with the Project build-out (2020) analysis year, the Project (2014) analysis would not exceed any of the established SCAQMD daily regional operational thresholds. Therefore, air quality impacts from Project operational emissions would be less than significant.

(b) Localized Operational Impacts

Operation of the Project would not introduce any major new sources of air pollution within the Project Site. Emissions estimates for criteria air pollutants from on-site sources are presented in Table IV.B-8 on page IV.B-35. 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 conservatively used to evaluate potential localized impacts. As shown in Table IV.B-8, on-site operational emissions would not exceed any of the LSTs.

Table IV.B-7
Project Regional Operational Emissions—Existing Conditions (2014)[a]
(pounds per day)

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project						
Area	9	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile	10	29	115	<1	15	4
Total Project Emissions	19	30	116	<1	15	4
No Project						
Area	4	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	<1	<1	<1	<1	<1
Mobile[b]	6	16	63	<1	8	2
Total No Project Emissions	10	16	63	<1	8	2
Net Emission	**9**	**14**	**53**	**<1**	**7**	**2**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	**(44)**	**(41)**	**(497)**	**(150)**	**(143)**	**(53)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Matrix Environmental, 2013.

Table IV.B-8
Project Localized Operational Emissions—Buildout (2020)[a]
(pounds per day)

Emission Source	NO_X	CO	PM_{10}	$PM_{2.5}$
Project				
Area	<0.1	0.2	<0.1	<0.1
Energy (Natural Gas)	0.7	0.6	0.1	0.1
On-Site Project Total	0.7	0.8	0.1	0.1
No Project				
Area	<0.1	0.2	<0.1	<0.1
Energy (Natural Gas)	0.2	0.1	<0.1	<0.1
On-Site No Project Total	0.2	0.3	<0.1	<0.1
Net Emissions	**0.5**	**0.5**	**0.1**	**0.1**
SCAQMD Significance Threshold[c]	**89**	**3,030**	**17**	**5**
Exceed Threshold?	**No**	**No**	**No**	**No**

[a] *Operational activities would occur on approximately 5 acres at a distance of approximately 100 meters from sensitive land uses.*

Source: Matrix Environmental, 2014.

An analysis of daily operational on-site emissions of existing conditions without the Project versus with the Project (2014) was also conducted. The results of these calculations and associated SCAQMD thresholds are presented in Table IV.B-9 on page IV.B-37. As shown in Table IV.B-9, the net overall operational on-site emissions associated with the Project (2020) under existing conditions (2014) would be similar to the estimated emissions during Project build-out (2020) provided in Table IV.B-8 on page IV.B-35. As with the Project build-out (2020) analysis year, on-site operational emissions under existing conditions would not exceed any of the LSTs. Therefore, localized impacts from on-site emission sources would be less than significant.

The SCAQMD recommends an evaluation of potential localized CO impacts when a project causes the level of service (LOS) at a study intersection to worsen from C to D, or if a project increases the volume-to-capacity (V/C) ratio at any intersection rated D or worse by 2 percent or more. As detailed in Section IV.K, Traffic, Access, and Parking, of this Draft EIR, Project traffic volumes would not meet these criteria at any intersection locations for the Project (2014) or (2020) conditions. Thus, the Project would not cause any new or exacerbate any existing CO hotspots, and, as a result, impacts related to localized mobile-source CO emissions would be less than significant.

(3) 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 toxic air contaminants (TACs). The CARB has published and adopted the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005), 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). The SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* (2005). Together the CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources, and the addition of new TAC sources in proximity to existing sensitive land uses.

The primary sources of potential air toxics associated with Project operations include diesel particulate matter from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets). The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate matter (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions. Based on this guidance, the Project is not considered to be a substantial source of diesel particulate matter warranting a refined HRA. In addition, the

Table IV.B-9
Project Localized Operational Emissions—Existing Conditions (2014)[a]
(pounds per day)

Emission Source	NO_X	CO	PM_{10}	$PM_{2.5}$
Project				
Area	<0.1	0.2	<0.1	<0.1
Energy (Natural Gas)	0.7	0.6	0.1	0.1
On-Site Project Total	0.7	0.8	0.1	0.1
No Project				
Area	<0.1	0.2	<0.1	<0.1
Energy (Natural Gas)	0.2	0.1	<0.1	<0.1
On-Site No Project Total	0.2	0.3	<0.1	<0.1
Net Emissions	**0.5**	**0.5**	**0.1**	**0.1**
SCAQMD Significance Threshold[c]	**89**	**3,030**	**17**	**5**
Exceed Threshold?	**No**	**No**	**No**	**No**

[a] *Operational activities would occur on approximately 5 acres at a distance of approximately 100 meters from sensitive land uses.*

Source: Matrix Environmental, 2014.

CARB-mandated ATCM limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than 5 minutes at any given time which would further limit diesel particulate emissions.

Based on the low incremental increase in the number and long-term (annual average) activity of the on-site TAC sources, the Project would not warrant the need for a refined health risk assessment, and potential TAC impacts would be less than significant.

Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes (e.g., chrome plating, electrical manufacturing, petroleum refinery). The Project would not include these types of potential industrial manufacturing process sources. It is expected that quantities of hazardous TACs located on-site would be below thresholds warranting further study under 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.

(4) Odors

According to the SCAQMD's *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food

processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project does not include any uses identified by the SCAQMD as being associated with odors. However, the Project does include restaurant uses which have the potential to emit odors through cooking and charbroilers. The project would minimize the release of odors from restaurant uses with odor reducing equipment as necessary. Garbage collection areas for the Project would be covered and situated away from the property line and sensitive uses. Good housekeeping practices would be sufficient to prevent objectionable odors from garbage collection areas. As the proposed uses would not be a source of odors, potential odor impacts would be less than significant.

(5) SCAQMD CEQA Air Quality Handbook Policy Analysis

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

- Will 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.
- Will the project exceed the assumptions utilized in preparing the AQMP?

As discussed in the preceding Section IV.B.3.d, localized concentrations of PM_{10}, $PM_{2.5}$, CO, and NO_2 have been analyzed for the Project. A summary of this analysis is provided below. SO_2 and VOC emissions were analyzed on a regional basis since SCAQMD has not established significance thresholds for localized concentrations of SO_2 and VOCs. Notwithstanding, given the Project's construction activities and proposed uses, SO_2 emissions would be negligible during construction and long-term operations, and therefore would not have the potential to cause or affect a violation of the SO_2 ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. Due to the role VOCs play in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

Particulate matter is the primary pollutant of concern during construction activities, and therefore, the Project's PM_{10} and $PM_{2.5}$ emissions during construction were analyzed

(1) to ascertain potential effects on localized concentrations and (2) to determine if there is a potential for such emissions to cause or affect a violation of the ambient air quality standards for PM_{10} and $PM_{2.5}$. The results of the analyses indicate that the increases in PM_{10} and $PM_{2.5}$ emissions during construction would not exceed the SCAQMD-recommended significance thresholds at sensitive receptors in proximity to the Project Site. Additionally, the Project's maximum potential NO_X and CO daily emissions during construction were analyzed to ascertain potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or affect a violation of an applicable ambient air quality standard. As shown in Table IV.B-5 on page IV.B-32, CO and NO_X would not exceed the SCAQMD-recommended significance thresholds and would not have a long-term impact on the region's ability to meet State and federal air quality standards. 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. Based on methodologies set forth by the SCAQMD, one measure of local area air quality impacts that can indicate whether the Project would cause or affect a violation of an air quality standard would be based on the estimated CO concentrations at selected receptor locations located in close proximity to the Project Site. As indicated earlier, no intersections met the SCAQMD criteria requiring a CO hotspot analysis, and impacts would be less than significant. Therefore, no violations of the State and federal CO standards are projected to occur.

As discussed above, a screening-level analysis of potential localized operational impacts from on-site activities was conducted. Based on the analysis, localized CO, NO_2, PM_{10}, and $PM_{2.5}$ operational impacts would be less than significant.

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Air Basin focuses on the attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the Project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP. Determining whether or not a Project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with the 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 of 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 2012 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 *Regional Transportation Plan (RTP)*.[26] In April 2012, SCAG adopted the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012–2035 RTP/SCS), which is included in the 2012 AQMP. The 2012–2035 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. For purposes of using the most current available data, the 2012–2035 RTP/SCS data were used in this analysis. Please refer to Section IV.H, Land Use, of this Draft EIR for additional information regarding the Project's consistency with the 2012–2035 RTP/SCS.

According to SCAG's 2012–2035 RTP/SCS, the forecasted employment for the City of Los Angeles Subregion will grow by approximately 75,448 jobs between 2014 and 2020.[27] The Project would generate approximately 85 net new employees. Thus, Project employment would account for 0.1 percent of the employment growth forecasted by SCAG in the City of Los Angeles Subregion between 2014 and 2020. Such levels of employment growth are consistent with the employment forecasts for the subregion as adopted by SCAG. Because these same projections form the basis of the 2012 AQMP, it can be concluded that the Project would be consistent with the projections in the AQMP.

- Does the project implement all feasible air quality mitigation measures?

The Project would comply with all applicable regulatory standards as required by the SCAQMD, as summarized above. The Project design would also support and promote environmental sustainability as described in Section II, Project Description, of this Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce the criteria air pollutants discussed herein. Furthermore,

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[26] *While the Ford Theatres are owned and operated by the County of Los Angeles, the Project Site is located within the City of Los Angeles. Accordingly, employment growth rates for the City of Los Angeles were used for purposes of evaluating whether development of the Project would be consistent with forecasts which were adopted by SCAG.*

[27] *Based on a linear interpolation of 2010–2020 data.*

no significant air quality impacts would occur. 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?

With regard to land use developments such as the Project, air quality policies focus on the reduction of vehicle trips and vehicle miles traveled. As discussed in Section IV.H, Land Use, of the Draft EIR, the Project would serve to implement a number of air quality-related policies upheld by the County of Los Angeles and SCAG. The Project is designed to reduce vehicle trips through transit and internal trip capture. During events, parking is available at the Universal City/Studio City Metro Red Line Station, where a shuttle is provided to and from the Project. Also, the Project would result in a 50 percent internal trip capture reduction for restaurant uses and a 15 percent transit reduction for visitors and employees that would use transit. Implementation of these sustainability features in return contributes to a reduction in air quality emissions via a reduction in vehicle trips and vehicle miles traveled. As the Project implements the SCAQMD's objective of reducing vehicle miles traveled and related vehicular air emissions, the Project would be consistent with AQMP land use policies.

In conclusion, the determination of AQMP consistency is primarily based on the long-term influence of the Project on air quality in the Air Basin. Project development would not have a significant short-term or long-term impact on the region's ability to meet State and federal air quality standards. Also, the Project would be consistent with the goals and policies of the AQMP for the control of fugitive dust. As discussed above, the Project's long-term influence would also be consistent with the goals and policies of the AQMP. Therefore, the Project is considered consistent with the SCAQMD's AQMP.

4. Cumulative Impacts

a. Construction

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

requirements (i.e., SCAQMD Rule 403 compliance) and would also implement all feasible mitigation measures when significant impacts are identified.

According to the SCAQMD, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. Construction-related daily emissions at the Project Site would not exceed any of the SCAQMD's regional or localized significance thresholds. Thus, the Project's contribution to cumulative construction-related regional emissions would not be cumulatively considerable and therefore would be less than significant. Construction 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.

Similar to the Project, the greatest potential for TAC emissions at each related project would generally involve diesel particulate emissions associated with heavy equipment operations during 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 at each related project would not result in a long-term (i.e., 70-year) substantial source of TAC emissions. Additionally, the SCAQMD CEQA guidance does not require a health risk assessment for short-term construction emissions. It is therefore not meaningful to evaluate long-term cancer impacts from construction activities which occur over relatively short durations. As such, cumulative toxic emission impacts during construction would be less than significant.

Also similar to the Project, potential sources that may emit odors during construction activities at each related project would include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with SCAQMD Rules, it is anticipated that construction activities or materials used in the construction of the related projects would not create objectionable odors. Thus, odor impacts from the related projects are anticipated to be less than significant individually, as well as cumulatively in conjunction with the Project.

b. Operation

According to the SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific

impacts, then the project would also result in a cumulatively considerable net increase of these criteria pollutants. Operational emissions from the Project would not exceed any of the SCAQMD's regional or localized significance thresholds during Project build-out (2020) or under existing conditions (2014). Therefore, 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 are largely residential, retail/commercial, and office uses), would represent a substantial source of TAC emissions, which are typically associated with large-scale industrial, manufacturing, and transportation hub facilities. The Project and related projects would be consistent with the recommended screening level siting distances for TAC sources, as set forth in CARB's Land Use Guidelines, and the Project and related projects would not result in a cumulative impact requiring further evaluation. However, the 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 California Assembly Bill 1807, which directs the CARB to identify substances as TACs and adopt ATCMs to control such substances, the SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial Basin-wide TAC emissions reductions. As such, cumulative TAC emissions during long-term operations would be less than significant. In addition, the Project would not result in any substantial sources of TACs that have been identified by the California Air Resources Board's Land Use Guidelines, and thus, would not result in a cumulatively considerable impact.

c. Odors

With respect to potential odor impacts, neither the Project nor any of the related projects (which are primarily residential, retail, and office uses) have a high potential to generate odor impacts.[28] Furthermore, any related project that may have a potential to generate objectionable odors would be required by SCAQMD Rule 402 (Nuisance) to implement BACT to limit potential objectionable odor impacts to a less-than-significant level. Thus, potential odor impacts from related projects are anticipated to be less than significant. The Project would not result in odor impacts, and, thus, would not have a cumulatively considerable impact.

[28] *According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.*

5. Mitigation Measures

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

6. Conclusion

Project-level and cumulative impacts with regard to air quality would be less than significant.