5.1 Air Quality

5.1 AIR QUALITY

This section addresses the emissions generated by the construction and operation of the proposed Project, and the potential impacts to air quality, including toxic air contaminants. The analysis also addresses the consistency of the proposed Project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) *2016 Air Quality Management Plan*.

5.1.1 EXISTING SETTING

SOUTH COAST AIR BASIN

Geography

The City of Burbank is located in the South Coast Air Basin (Basin), a 6,600-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 Basin includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area of Riverside County.

The extent and severity of the air pollution problem in the 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 air pollutants throughout the Basin.

Climate

The general 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 climate consists of a semi-arid environment with mild winters, warm summers, moderate temperatures, and comfortable humidity. Precipitation is limited to a few winter storms. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The average annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit (°F). However, with a less-pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. All portions of the Basin have had recorded temperatures over 100°F in recent years.

Although the Basin has a semi-arid climate, the air near the surface is moist due to the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by offshore winds, the ocean effect is dominant. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature. Annual average relative humidity is 70 percent at the coast and 57 percent in the eastern part of the Basin. Precipitation in the Basin is typically nine to 14 inches annually and is rarely in the form of snow or hail due to typically warm weather. The frequency and amount of rainfall is greater in the coastal areas of the Basin.

The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from

entering the upper atmosphere, resulting in a settlement in the foothill communities. Below 1,200 feet, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the day. Mixing heights for inversions are lower in the summer and more persistent, being partly responsible for the high levels of ozone (O_3) observed during summer months in the Basin. Smog in southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight. The Basin has limited ability to disperse these pollutants due to typically low wind speeds.

LOCAL AMBIENT AIR QUALITY

The SCAQMD monitors air quality at 37 monitoring stations throughout the Basin. Each monitoring station is located within a Source Receptor Area (SRA). The communities within an SRA are expected to have similar climatology and ambient air pollutant concentrations.

Criteria pollutants are pollutants regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and effects are identified below.

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions.

CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O_3). Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" ozone is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO_X), and sunlight to form; therefore, VOCs and NO_X are ozone precursors. To reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While ozone in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone (in the troposphere) can adversely affect the human respiratory system and other tissues. Ozone is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of ozone. Short-term exposure (lasting for a few hours) to ozone at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and

asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2). Nitrogen oxides (NO_X) are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (i.e., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the Statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards. On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for Statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO_2). SO_2 is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with SO_X and lead. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide,

carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

Reactive Organic Gases (ROG). Similar to VOC, ROG are also precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC (see previous) interchangeably.

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics and CO are of particular concern. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The following types of people are most likely to be adversely affected by air pollution, as identified by CARB: children under 14, elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups are called sensitive receptors and include residential areas, hospitals, day-care facilities, elder-care facilities, elementary schools, and parks.

Surrounding land uses include a mixture of commercial, transportation, light industrial, multi-family residential, and vacant land uses. There are no sensitive uses in the immediate Project area. The Airport Marriot Hotel is located to the north; multi-family residential uses are located to the east; a railroad right-of-way is located to the south; and vacant land, commercial uses, and Hollywood-Burbank (Burbank) Airport are located to the west.

The nearest sensitive receptors to the proposed construction (Phase 6 site) are multi-family residential uses located approximately 690 feet to the east of the Phase 6 site. The nearest school to the proposed construction is Providencia Elementary School, located approximately 1,185 feet to the south of the Phase 6 site.

5.1.2 REGULATORY SETTING

FEDERAL

U.S. Environmental Protection Agency

The EPA is responsible for implementing the Federal Clean Air Act (FCAA) that was first enacted in 1955 and amended numerous times after. The FCAA established Federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare; refer to Table 5.1-1, *National and California Ambient Air Quality Standards*.

Table 5.1-1
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[3,4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m³)	**Nonattainment**	N/A	N/A[5]
	8 Hours	0.070 ppm (137 µg/m³)	**Nonattainment**	0.070 ppm (137 µg/m³)	**Nonattainment**
Particulate Matter (PM_{10})	24 Hours	50 µg/m³	**Nonattainment**	150 µg/m³	Attainment/Maintenance
	Annual Arithmetic Mean	20 µg/m³	**Nonattainment**	N/A	N/A
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 µg/m³	**Nonattainment**
	Annual Arithmetic Mean	12 µg/m³	**Nonattainment**	12.0 µg/m³	**Nonattainment**
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Attainment/Maintenance
	1 Hour	20 ppm (23 mg/m³)	Attainment	35 ppm (40 mg/m³)	Attainment/Maintenance
Nitrogen Dioxide (NO_2)[5]	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	N/A	53 ppb (100 µg/m³)	Attainment/Maintenance
	1 Hour	0.18 ppm (339 µg/m³)	Attainment	100 ppb (188 µg/m³)	Attainment/Maintenance
Lead (Pb)[7,8]	30 days Average	1.5 µg/m³	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 µg/m³	**Nonattainment**
	Rolling 3-Month Average	N/A	N/A	0.15 µg/m³	**Nonattainment**
Sulfur Dioxide (SO_2)[6]	24 Hours	0.04 ppm (105 µg/m³)	Attainment	0.14 ppm (for certain areas)	Unclassified/Attainment
	3 Hours	N/A	N/A	N/A	N/A
	1 Hour	0.25 ppm (655 µg/m³)	Attainment	75 ppb (196 µg/m³)	N/A
	Annual Arithmetic Mean	N/A	N/A	0.30 ppm (for certain areas)	Unclassified/Attainment
Visibility-Reducing Particles[9]	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70 percent RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Unclassified		
Vinyl Chloride[7]	24 Hour	0.01 ppm (26 µg/m³)	N/A		

µg/m³ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable

Notes:

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
6. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
7. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
8. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
9. In 1989, CARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

Source: California Air Resources Board, *Ambient Air Quality Standards Chart,* May 4, 2016, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, accessed March 5, 2018.

STATE

California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 5.1-1, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the State Implementation Plan for the State of California.

Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment.

South Coast Air Quality Management District

The SCAQMD is one of 35 air quality management districts that have prepared AQMPs to accomplish a five-percent annual reduction in emissions. On March 3, 2017, the SCAQMD Governing Board approved the *2016 Air Quality Management Plan* (2016 AQMP), which is a regional blueprint for achieving air quality standards and healthful air. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS), and updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. The 2016 AQMP relies on a multi-level partnership of governmental agencies at the Federal, State, regional, and local level. These agencies (EPA, CARB, local governments, Southern California Association of Governments [SCAG], and the SCAQMD) are the primary agencies that implement the AQMP programs.

The 2016 AQMP includes integrated strategies and measures to meet the NAAQS. To ensure air quality goals would be met while maximizing benefits and minimizing adverse impacts to the regional economy, the following policy objectives have guided the development of the 2016 AQMP:

- Eliminate reliance on future technologies (FCAA Section 182(e)(5)) measures to the maximum extent feasible;
- Calculate and take credit for co-benefits from other planning efforts;
- Develop a strategy with fair-share emission reductions at the Federal, State, and local levels;

- Invest in strategies and technologies meeting multiple objectives regarding air quality, climate change, air toxics exposure, energy, and transportation;

- Identify and secure significant funding for incentives to implement early deployment and commercialization of zero and near-zero technologies;

- Enhance the socioeconomic analysis and pursue the most efficient and cost-effective path to achieve multi-pollutant and multi-deadline targets; and

- Prioritize enforceable regulatory measures as well as non-regulatory, innovative and "win-win" approaches for emission reductions.

In addition to the 2016 AQMP and its rules and regulations, the SCAQMD published the *CEQA Air Quality Handbook*. The SCAQMD *CEQA Air Quality Handbook* provides guidance to assist local government agencies and consultants in developing the environmental documents required by CEQA. With the help of the *CEQA Air Quality Handbook*, local land use planners and consultants are able to analyze and document how proposed and existing projects affect air quality and should be able to fulfill the requirements of the CEQA review process. The SCAQMD is in the process of developing an *Air Quality Analysis Guidance Handbook* to replace the current *CEQA Air Quality Handbook* approved by the SCAQMD Governing Board in 1993.

LOCAL

Burbank2035 General Plan

The *Burbank2035 General Plan* (Burbank2035) includes numerous goals, policies, and programs that would impact future air emissions generated by land uses within the City. These include Mobility Programs M-6 (Transit System), M-7 (Bicycle Master Plan and Pedestrian Master Plan), and M-10 (Transportation Demand Management). Burbank2035 also includes an Air Quality and Climate Change Element, which is an optional element (i.e., not required by State law), pursuant to California Government Code Section 65303. This Element is specifically designed to reduce the City's air pollutant emissions and comply with Statewide goals. The Air Quality and Climate Change Element of Burbank2035, contains the following Policies that reduce potential air quality impacts:

Policy 1.1: Coordinate air quality planning efforts with local, regional, state, and federal agencies, and evaluate the air quality effects of proposed plans and development projects.

Policy 1.2: Seek to attain or exceed the more stringent of federal or state ambient air quality standards for each criteria air pollutant.

Policy 1.5: Require projects that generate potentially significant levels of air pollutants, such as landfill operations or large construction projects, to incorporate best available air quality and greenhouse gas mitigation in project design.

Policy 1.6: Require measures to control air pollutant emissions at construction sites and during soil disturbing or dust-generating activities (i.e., tilling, landscaping) for projects requiring such activities.

Policy 1.7: Require reduced idling, trip reduction, and efficiency routing of transportation for City departments, where appropriate.

Policy 1.9: Encourage the use of zero-emission vehicles, low-emission vehicles, bicycles, and other non-motorized vehicles, and car-sharing programs by requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.

Policy 1.10: Give preference to qualified contractors using reduced-emission equipment for City construction projects and contracts for services, as well as businesses that practice sustainable operations.

Policy 2.2: Separate sensitive uses such as residences, schools, parks, and day care facilities from sources of air pollution and toxic chemicals. Provide proper site planning and design features to buffer and protect when physical separation of these uses is not feasible.

Policy 2.3: Require businesses that cause air pollution to provide pollution control measures.

Policy 2.5: Require the use of recommendations from the California Air Resources Board's Air Quality and Land Use Handbook to guide decisions regarding location of sensitive land uses.

Policy 3.1: Develop and adopt a binding, enforceable reduction target and mitigation measures and actions to reduce community-wide greenhouse gas emissions within Burbank by at least 15 percent from current levels by 2020.

5.1.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

REGIONAL AIR QUALITY

In its *CEQA Air Quality Handbook* (November 1993), the SCAQMD has established significance thresholds to assess the impact of project-related air pollutant emissions. Table 5.1-2, *SCAQMD Regional Pollutant Emission Thresholds of Significance*, presents these significance thresholds. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emission rates below these thresholds is considered to have a less than significant effect on regional air quality.

Table 5.1-2
SCAQMD Regional Pollutant Emission Thresholds of Significance

Phase	Pollutant (pounds/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operation	55	55	550	150	150	55
VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns						
Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993.						

LOCAL AIR QUALITY

Localized Significance Thresholds

Localized Significance Thresholds (LSTs) were developed in response to the SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (revised July 2008) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with proposed projects. The SCAQMD provides the LST lookup tables for one, two, and five-acre projects emitting CO, NO_X, PM_{10}, and $PM_{2.5}$. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors.

Localized CO

In addition, the project would result in a local air quality impact if the project results in increased traffic volumes and/or decreases in Level of Service (LOS) that would result in an exceedance of the CO ambient air quality standards of 20 parts per million (ppm) for 1-hour CO concentration levels, and 9.0 ppm for 8-hour CO concentration levels. If the CO concentrations at potentially impacted intersections with the project are lower than the standards, then there is no significant impact. If future CO concentrations with the project are above the standard, then the project would have a significant local air quality impact.

Health Risk Assessment

The SCAQMD states that if a proposed project is expected to generate and/or attract diesel trucks, which emit diesel particulate matter (DPM), preparation of a health risk assessment (HRA) is necessary. The HRA is recommended to be prepared in accordance with the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of ten persons per million as the maximum acceptable incremental cancer risk due to DPM exposure. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact.

The SCAQMD also established non-carcinogenic risk parameters for use in HRA. Non-carcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level. A hazard index less than 1.0 means that adverse health effects are not expected, and impacts would be less than significant.

Cumulative Emissions

The SCAQMD's 2016 AQMP was prepared to accommodate growth, meet State and Federal air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. According to the *CEQA Air Quality Handbook*, project-related emissions that fall below the established construction and operational thresholds should be considered less than significant unless there is pertinent information to the contrary.

If a project exceeds these emission thresholds, the *CEQA Air Quality Handbook* states that the significance of a project's contribution to cumulative impacts should be determined based on whether the rate of growth in average daily trips exceeds the rate of growth in population.

CEQA SIGNIFICANCE CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by Appendix G of the CEQA Guidelines, as amended, and used by the City of Burbank in its environmental review process. The Initial Study Checklist includes questions relating to air quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement AQ-4);
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation (refer to Impact Statements AQ-1 and AQ-2);
- 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) (refer to Impact Statements AQ-1 and AQ-2);
- Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statement AQ-3); and/or
- Create objectionable odors affecting a substantial number of people (refer to Section 8.0, *Effects Found Not To Be Significant*).

Based on these significance thresholds and criteria, the Project's effects have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

The standards used to evaluate the significance of impacts are sometimes qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

5.1.4 IMPACTS AND MITIGATION MEASURES

SHORT-TERM (CONSTRUCTION) AIR EMISSIONS

AQ-1 SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN AIR POLLUTANT EMISSION IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS.

Impact Analysis: Short-term air quality impacts are predicted to occur during grading and construction operations associated with implementation of the proposed Project. Temporary air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from grading and building construction; and
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew.

Potential odors could arise from the diesel construction equipment used on-site, as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Additionally, odors generated during construction activities would be temporary and are not considered to be a significant impact.

Construction activities would include demolition, grading, paving, building construction, and painting. Grading activities would include approximately 5,500 cubic yards of cut and 20,900 cubic yards of fill. Construction of the proposed Project is anticipated to occur in one phase beginning in May 2024, and completion is anticipated by May 2026.

FUGITIVE DUST EMISSIONS

Fugitive dust (PM_{10} and $PM_{2.5}$) from grading and construction is expected to be short-term and would cease following Project completion. Most of this material is composed of inert silicates, which are less harmful to health than the complex organic particulates released from combustion sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. The greatest amount of fugitive dust generated is expected to occur during site grading and excavation. Dust generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular concern is the amount of PM_{10} generated as a part of fugitive dust emissions.

The California Emissions Estimator Model (CalEEMod, version 2016.3.2) was used to calculate PM_{10} and $PM_{2.5}$ fugitive dust emissions as part of the site earthwork activities; refer to Table 5.1-3, *Maximum Daily Construction Emissions*. Maximum particulate matter emissions would occur during the initial stages of construction, when grading activities would occur. As depicted in Table 5.1-3, unmitigated construction-related emissions would not exceed the established SCAQMD thresholds for PM_{10} and $PM_{2.5}$. However, as a condition of approval, the proposed Project would be required to adhere to standard SCAQMD regulations, such as implementing SCAQMD Rule 403 that would further reduce construction emissions. The Conditions of Approval require limiting on-site vehicle speeds, shutting down equipment when not in use for extended periods of time, watering construction areas not in use, and tarping haul trucks. With adherence to the Conditions of Approval, the maximum mitigated particulate matter concentration would be 8.03 pounds per day (lbs/day) for PM_{10} and 2.43 lbs/day for $PM_{2.5}$ in construction Year 1. Therefore, emissions in each year would not exceed SCAQMD thresholds of 150 lbs/day for PM_{10} and 55 lbs/day for $PM_{2.5}$. Although the unmitigated particulate matter levels would not exceed SCAQMD thresholds absent of specific dust reduction measures, conditions of approval are required to ensure impacts are minimized, as the Basin is nonattainment for PM_{10} and $PM_{2.5}$.

Table 5.1-3
Maximum Daily Construction Emissions

Emissions Source	Daily Pollutant Emissions (pounds/day)[1]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Year 1						
Unmitigated	2.94	35.13	28.22	0.10	18.11	4.62
Mitigated[2]	2.94	35.13	28.22	0.10	8.03	2.43
SCAQMD Construction Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Mitigated Emissions Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***
Year 2						
Unmitigated	1.75	15.19	19.04	0.04	1.66	0.81
Mitigated[2]	1.75	15.19	19.04	0.04	1.41	0.75
SCAQMD Construction Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Mitigated Emissions Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***
Year 3						
Unmitigated	25.12	16.34	21.09	0.05	1.89	0.91
Mitigated[2]	25.12	16.34	21.09	0.05	1.60	0.84
SCAQMD Construction Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Mitigated Emissions Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns

Notes:
1. Emissions were calculated using CalEEMod version 2016.3.2.
2. As a Condition of Approval, the proposed Project would be required to adhere to standard SCAQMD regulations, such as implementing SCAQMD Rule 403 that would further reduce construction emissions. The reduction/credits for construction emission mitigations are based on mitigation included in the CalEEMod model and as typically required by the SCAQMD. Reduction credits are associated with activities involving: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.

Refer to Appendix C, *Air Quality/Greenhouse Gas/ HRA Data*, for assumptions used in this analysis.

ROG EMISSIONS

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions that are O_3 precursors. As shown in Table 5.1-3, ROG emissions would be below the applicable thresholds and impacts remain at less than significant levels.

CONSTRUCTION EXHAUST EMISSIONS

Exhaust emissions would be generated by the operation of vehicles and equipment on the construction site, such as tractors, dozers, backhoes, cranes, and trucks. The majority of construction equipment and vehicles would be diesel powered, which tends to be more efficient than gasoline-powered equipment. Diesel-powered equipment produces lower carbon monoxide and hydrocarbon emissions than gasoline equipment, but produces greater amounts of NO_X, SO_X, and particulates per hour of activity. The transportation of machinery, equipment and materials to and from the Project site, as well as construction worker trips, would also generate vehicle emissions during construction.

As presented in Table 5.1-3, construction equipment and worker vehicle exhaust emissions would not exceed the emissions thresholds. The NO_X and SO_X emissions during the periods described above would not exceed the applicable thresholds. A less than significant impact would occur in this regard.

ASBESTOS

Pursuant to guidance issued by the Governor's Office of Planning and Research, State Clearinghouse, lead agencies are encouraged to analyze potential impacts related to naturally occurring asbestos. Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed.

Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (dated August 2000), the proposed Project is not located in an area where naturally occurring asbestos is likely to be present. Therefore, impacts would be considered less than significant.

TOTAL DAILY CONSTRUCTION EMISSIONS

In accordance with the SCAQMD Guidelines, CalEEMod was utilized to model construction emissions for ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Construction would occur between 2024 and 2026, with the greatest emissions being generated during the initial stages. Additionally, the greatest amount of ROG emissions would occur during the third year of construction due to the application of architectural coatings. CalEEMod allows the user to input mitigation measures such as watering the construction area to limit fugitive dust and applying soil stabilizers to the Project area. Mitigation measures selected within CalEEMod allow for certain reduction credits and result in a decrease of pollutant emissions. Reduction credits are based upon studies developed by CARB, SCAQMD, and other air quality management districts throughout California, and were programmed within the CalEEMod model. As indicated in Table 5.1-3, CalEEMod calculates the reduction associated with recommended mitigation measures (implemented through Project conditions of approval).

As shown in Table 5.1-3, unmitigated construction-related emissions would not exceed SCAQMD construction thresholds. However, implementation of Project conditions of approval would further reduce construction-related impacts by requiring measures to reduce air pollutant emissions from construction activities. These measures call for the maintenance of construction equipment, the use of non-polluting and non-toxic building equipment, and minimizing fugitive dust. With implementation of Project conditions of approval, construction related air emissions would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (OPERATIONAL) AIR EMISSIONS

AQ-2 IMPLEMENTATION OF THE PROPOSED PROJECT WOULD RESULT IN INCREASED IMPACTS PERTAINING TO OPERATIONAL AIR EMISSIONS.

Impact Analysis: Operational emissions generated by both stationary and mobile sources would result from normal daily activities on the Project site after construction is complete (i.e., increased concentrations of O_3, PM_{10}, and CO). Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices, the operation of landscape maintenance and on-site equipment, and the use of consumer products. Stationary energy emissions would result from energy consumption associated with the proposed Project. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site. The estimated operational emissions associated with each of these sources are presented in Table 5.1-4, *Long-Term Operational Air Emissions*, and discussed below.

AREA SOURCE EMISSIONS

Area source emissions include those generated by architectural coatings, consumer products, and landscape maintenance equipment as described below.

- *Architectural Coatings:* As part of Project maintenance, architectural coatings on the Project building would emit emissions from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings.

- *Consumer Products:* Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds that when released in the atmosphere can react to form ozone and other photochemically reactive pollutants.

- *Landscape Maintenance Equipment:* Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project site.

The emissions associated with all area source emissions were calculated based on assumptions provided in the CalEEMod model.

ENERGY SOURCE EMISSIONS

Energy source emissions would be generated due to an increased demand for electrical energy and natural gas resulting from Project implementation. This assumption is based on the supposition that power plants supplying electricity to the site are utilizing fossil fuels. Electric power generating plants are distributed throughout the Basin and western United States, and their emissions contribute to the total regional pollutant burden. The primary use of electricity and natural gas by the Project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. As indicated in Table 5.1-4, the Project's unmitigated energy source emissions would not exceed SCAQMD thresholds.

MOBILE SOURCE EMISSIONS

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source. Project-generated vehicle emissions have been estimated using CalEEMod. This model predicts ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions from motor vehicle traffic associated with new or modified land uses. According to the *Traffic Impact Study for the Media Studios Office Project* (Traffic Study), the proposed Project would generate a maximum of 903 net new daily trips; refer to Appendix E, *Traffic Study*. As shown in Table 5.1-4, the anticipated mobile source emissions would be below the SCAQMD significance thresholds.

OPERATIONAL EMISSIONS SUMMARY

Table 5.1-4, *Long-Term Operational Air Emissions*, presents the Project's anticipated operational source emissions. As indicated, the unmitigated operational emissions from the proposed Project would not exceed regional thresholds of significance established by the SCAQMD.

Table 5.1-4
Long-Term Operational Air Emissions

Scenario	Emissions (pounds per day)[1]					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer Scenario						
Area Source	3.62	0.00	0.03	0.00	0.00	0.00
Energy Source	0.05	0.45	0.38	0.00	0.03	0.03
Mobile	1.25	5.50	16.33	0.07	6.24	1.70
Total Maximum Daily Emissions	**4.91**	**5.95**	**16.74**	**0.07**	**6.27**	**1.74**
SCAQMD Regional Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter Scenario						
Area Source	3.62	0.00	0.03	0.00	0.00	0.00
Energy Source	0.05	0.45	0.38	0.00	0.03	0.03
Mobile	1.21	5.61	15.49	0.06	6.24	1.70
Total Maximum Daily Emissions	**4.87**	**6.06**	**15.90**	**0.07**	**6.27**	**1.74**
SCAQMD Regional Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

ROG = reactive organic gases; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns

Notes:
1 Based on CalEEMod modeling results, worst-case seasonal emissions for area, energy, and mobile emissions have been modeled. Refer to Appendix C, for assumptions used in this analysis.

IMPACT CONCLUSION

As indicated in Table 5.1-4, the unmitigated operational emissions from the proposed Project would remain below the applicable thresholds. Therefore, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LOCALIZED EMISSIONS

AQ-3 DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN LOCALIZED EMISSIONS IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS.

Impact Analysis:

LOCALIZED SIGNIFICANCE THRESHOLDS

SCAQMD's LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level projects. The SCAQMD provides the LST lookup tables for one, two, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The Project site is located within SRA 7 and the area disturbed would be approximately 1.73 acres.

The closest sensitive receptors to the proposed construction (Phase 6 site) are multi-family residential uses located approximately 690 feet to the east. Table 5.1-5, *Localized Significance of Emissions*, presents the Project's localized unmitigated and mitigated construction-related and operational emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ compared to the LSTs for SRA 7, East San Fernando Valley. It is noted that Table 5.1-5 conservatively uses the two-acre LST threshold for screening purposes.

As indicated in Table 5.1-5, the Project's unmitigated on-site construction emissions would not exceed the LSTs; therefore, the Project's construction-related localized significance impacts would be less than significant. Additionally, for Project operations, the two-acre threshold was conservatively used for receptors at 690 feet away. The LST analysis only includes on-site sources; therefore, the operational emissions indicated in Table 5.1-5 include area sources. The Project's unmitigated operational area source emissions would be negligible and would not exceed the LSTs for SRA 7. Therefore, the Project's operational localized significance impacts for Project operations would be less than significant.

Table 5.1-5
Localized Significance of Emissions

On-Site Sources	Pollutant (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction				
Year 1[1,4]				
Total Unmitigated On-Site Emissions	23.26	23.39	16.63	4.21
Total Mitigated On-Site Emissions	23.26	23.39	6.84	2.09
Localized Significance Threshold [5]	*165*	*2,786*	*62*	*21*
Thresholds Exceeded?	***No***	***No***	***No***	***No***
Year 2[2,4]				
Total Unmitigated On-Site Emissions	12.47	16.08	0.53	0.50
Total Mitigated On-Site Emissions	12.47	16.08	0.53	0.50
Localized Significance Threshold [5]	*165*	*2,786*	*62*	*21*
Thresholds Exceeded?	***No***	***No***	***No***	***No***
Year 3[3,4]				
Total Unmitigated On-Site Emissions	12.47	16.08	0.53	0.50
Total Mitigated On-Site Emissions	12.47	16.08	0.53	0.50
Localized Significance Threshold [5]	*165*	*2,786*	*62*	*21*
Thresholds Exceeded?	***No***	***No***	***No***	***No***
OPERATIONS				
Total Unmitigated Area Source Emissions	0.00	0.03	0.00	0.00
Total Mitigated Area Source Emissions	0.00	0.03	0.00	0.00
Localized Significance Threshold [5]	*165*	*2,786*	*15*	*5*
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:
1. The highest on-site NO_X, CO, and PM_{10}, emissions for Year 1 are from the Demolition phase and $PM_{2.5}$ emissions for Year 1 are from the Grading phase.
2. The highest on-site NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions for Year 2 are from the Building Construction phase.
3. The highest on-site NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions for Year 3 are from the Building Construction phase.
4. As a condition of approval, the proposed Project would be required to adhere to standard SCAQMD regulations, such as implementing SCAQMD Rule 403 that would further reduce construction emissions. The reduction/credits for construction emission mitigations are based on mitigation included in the CalEEMod model and as typically required by the SCAQMD. Reduction credits are associated with activities involving: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.
5. The Localized Significance Threshold was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold conservatively uses the two-acre threshold, the distance to sensitive receptors (200 meters), and the source receptor area (SRA 7).

CARBON MONOXIDE HOTSPOTS

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, et cetera.). The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by two percent for any intersection with an existing Level of Service (LOS) D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections.

As discussed, the Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on United States urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. CO emissions have continued to decline since this time. The Basin was re-designated as attainment in 2007 and is no longer addressed in the SCAQMD's 2016 AQMP. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A detailed CO analysis was conducted in the *Federal Attainment Plan for Carbon Monoxide* (CO Plan) for the SCAQMD's *2003 Air Quality Management Plan*. The 2003 *Air Quality Management Plan* is the most recent AQMP that addresses CO concentrations. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the Basin and would likely experience the highest CO concentrations. Thus, CO analysis within the CO Plan is utilized in a comparison to the Project, since it represents a worst-case scenario with heavy traffic volumes within the Basin.

Of these locations, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles experienced the highest CO concentration (4.6 ppm), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day. Based on the Traffic Study, none of the study intersections would have an average daily traffic volume greater than 100,000 vehicles per day. As a CO hotspot would not be experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any Project study intersection. Therefore, impacts would be less than significant in this regard.

HEALTH RISK ASSESSMENT

A Health Risk Assessment (HRA) was conducted to evaluate potential health risks associated with Toxic Air Contaminants (TACs) including Diesel Particulate Matter (DPM) coming from the Southern California Regional Rail Authority (SCRRA) railway located approximately 440 feet south of the proposed Project. As the Project proposes sensitive receptors (workers) within 500 feet of the rail alignment, an analysis of TACs is required per the Burbank2035 and SCAQMD guidance. Long-term exposure to TACs of potential concern within the Project area includes DPM, a form of PM_{10} emitted mostly from diesel powered freight, commuter, and tourist trains traveling through the area to the south of the Project site. This analysis was prepared in accordance with the requirements of the SCAQMD and guidance from the Office of Environmental Health Hazard Assessment (OEHHA) to determine if significant health risks are likely to occur from the location of the Project. Assumptions and calculations used in determining the health risk with respect to railway usage near the Project area is included in Appendix C.

Diesel Particulate Matter (DPM)

Diesel Particulate Matter (DPM) is emitted from both mobile and stationary sources. In California, on-road diesel-fueled engines contribute approximately 24 percent of the statewide total, with an additional 71 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources contribute about five percent of total

DPM. It should be noted that CARB has developed several plans and programs to reduce diesel emissions such as the Diesel Risk Reduction Plan (DRRP), the Statewide Portable Equipment Registration Program (PERP), and the Diesel Off-Road Reporting System (DOORS). The PERP and DOORS programs allow owners or operators of portable engines and certain other types of equipment to register their units in order to operate their equipment throughout California without having to obtain individual permits from local air districts.

Health Risk Analysis Thresholds

In order to determine whether or not a proposed project would cause a significant effect on the environment involving generation of air toxic emissions, the impact of the project must be determined by examining the types and levels of air toxics generated and the associated impacts on factors that affect air quality. While the final determination of impact significance is within the purview of the lead agency pursuant to the CEQA Guidelines, the SCAQMD recommends that the following thresholds be used by lead agencies in determining whether the proposed project is significant. If the lead agency finds that the proposed project has the potential to exceed these thresholds, the project should be considered significant. The thresholds for air toxic emissions are as follows.

- *Cancer Risk:* Emit carcinogenic or toxic contaminants that exceed the maximum individual cancer risk of 10 in one million.

- *Non-Cancer Risk:* Emit toxic contaminants that exceed the maximum hazard quotient of 1.0 in one million.

Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to air toxic emissions. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact. The 10 in one million standard is a very health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these air toxics.

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. Noncarcinogenic risks are quantified by calculating a hazard index (HI), expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which adverse health effects are not likely to occur. A hazard index of less than one (1.0) means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less than significant.

Methodology

The air dispersion modeling for the HRA was performed using the AERMOD dispersion model. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the stack heights of the emission sources (not a factor in this case). AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. Surface and upper air meteorological data was provided

by the SCAQMD. The Burbank Airport Monitoring Station (KBUR)[1] was selected as being the most representative meteorology based on proximity.

Fleet distribution profiles for locomotives traversing the SCRRA railway right-of-way were based upon information from the Federal Railroad Administration, Office of Safety Analysis for crossing number 746010T (Milepost 0461.46) located at the Buena Vista Street crossing[2] southeast of the Project site. The U.S. Department of Transportation (DOT) Crossing Inventory Form for crossing number 746010T lists an average of 50 trains per day at this railway crossing with 43 being passenger trains and the rest being freight trains. Therefore, it is assumed that the 43 passenger trains are from Metrolink and Amtrak combined, and the remaining 7 trains are from the Union Pacific Railroad (UPRR). Metrolink[3] and Amtrak[4] has recently converted their passenger fleet to Tier 4 locomotives, therefore, the Tier 4 engine particulate matter emission of 0.03 per break horsepower (bhp)[5] was utilized for passenger train emissions. Due to the private nature of freight activities, it was conservatively assumed that all freight trains were Tier 0 engines, the highest polluting engine Tier, and had a worst-case particulate matter emission factor of 0.22 grams per bhp[6]. Refer to Appendix C, for all calculations and modeling assumptions.

The emission source in the AERMOD model is a 1.31 mile one-line volume source (comprised of 231 smaller volume sources) along the SCRRA railway segment to the south of the Project site. Locomotive emissions in the volume source were assigned a release height of 4.6 meters (15 feet).[7] The 43 passenger trains were estimated to have an emission rate of 0.0026 grams per second (g/s) while the 7 freight trains were estimated to have an emission rate of 0.0031 g/s. The total emission rate modeled in the line-volume source was 0.0058 g/s split among the 231 smaller volume sources.

AERMOD was run to obtain the peak 1-hour and annual average concentration in micrograms per cubic meter ($\mu g/m^3$) of PM_{10} at the Project site. Air dispersion modeling is required to estimate (a) annual average concentrations to calculate the Maximum Individual Cancer Risk (MICR), the maximum chronic HI, the zones of impact, and excess cancer burden; and (b) peak hourly concentrations to calculate the health impact from substances with acute non-cancer health effects.[8] To achieve these goals, a discrete receptor grid was placed in the Project area to cover the zone of impact. According to the SCAQMD, in order "to identify the maximum impacted receptors (i.e., peak cancer risk and peak hazard indices) a grid spacing of 100 meters or less must be used."[9] The Project site is considered the sensitive receptor in this scenario; thus, receptors were modeled with a 5-meter (16.4 feet) by 5-meter (16.4 feet) discrete receptor grid spacing in the Project area. In addition, United States Geological Survey (USGS) 1/3 arc-second (about

[1] South Coast Air Quality Management District, *Data for AERMOD,* http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod, accessed March 30, 2018.

[2] Federal Railroad Administration Office of Safety Analysis, *Generate Crossing Inventory and Accident Reports*, https://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx, accessed March 30, 2018.

[3] Southern California Regional Rail Authority, *Metrolink Tier 4 Fact Sheet*, https://www.metrolinktrains.com/globalassets/about/tier-4-factsheet.pdf, accessed March 30, 2018.

[4] California Department of Transportation, *Caltrans Orders 14 New Diesel-Electric Locomotives for Amtrak Pacific Surfliner Route*, http://www.dot.ca.gov/hq/paffairs/news/pressrel/2015/15pr114.htm, accessed March 30, 2018.

[5] United States Environmental Protection Agency, *Locomotives: Exhaust Emission Standards,* https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA09.pdf, accessed April 9, 2018.

[6] Ibid.

[7] Southern California Regional Rail Authority, *Metrolink Fact Sheet Q1 2017-2018*, https://www.metrolinktrains.com/globalassets/about/agency/quarterly-fact-sheet-q1-fact-sheet-2017-2018.pdf, accessed March 30, 2018.

[8] South Coast Air Quality Management District, *AB2588 & Rule 1402 Supplemental Guidelines,* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-supplemental-guidelines.pdf?sfvrsn=9, accessed April 9, 2018.

[9] Ibid.

10 meters) National Elevation Dataset (NED) terrain data was processed with AERMAP[10] and imported into AERMOD for the Project area. The modeling and analysis was prepared in accordance with the SCAQMD and OEHHA Guidelines.

Note that the concentration estimate developed using this methodology is considered conservative and is not a specific prediction of the actual concentrations that would occur at the Project site any one point in time. Actual 1-hour and annual average concentrations are dependent on many variables, particularly the number and type of locomotive traveling on the railway by the Project site during time periods of adverse meteorology.

Risk and Hazard Assessment

The Hotspots Analysis and Reporting Program Version 2 (HARP2) Air Dispersion and Risk Tool (ADMRT) was employed to calculate the health risks of the SCRRA railway on the sensitive receptors within the proposed Project. HARP2 was created for the purpose of assisting and supporting the local California Air Pollution Control and Air Quality Management Districts with implementing the requirements of AB 2588. Although designed to meet the programmatic requirements of the Air Toxics "Hot Spots" Program, HARP2 modules have also been used for preparing risk assessments for other air related programs (e.g., air toxic control measure development, facility permitting applications, roads, ambient monitoring evaluations, CEQA reviews).

The risk analysis algorithms and default values used in HARP2 are based on the OEHHA guidelines set forth in the revised Technical Support Document for Exposure Assessment and Stochastic Analysis. All equations, default parameter values, and variable distributions encoded into HARP2 are from the OEHHA Guidance Manual. More specifically, The Risk Tool module in HARP2 allows the user to:

- Calculate potential health impacts using a ground level concentration;
- Evaluate one or multiple pollutants for one or multiple receptor points;
- Calculate cancer and noncancer (acute, 8-hour, and chronic) health impacts using the new risk assessment guidelines in the OEHHA Guidance Manual (OEHHA, 2015);
- Use point estimates to calculate inhalation and multipathway risks; and
- Perform stochastic health risk analyses.

Cancer Risk

Based on the OEHHA derived methodology, the worker inhalation cancer risk from the annual average DPM concentrations is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor (ASF), and the exposure duration divided by the lifetime cancer risk, to yield the excess cancer risk; refer to Appendix C for assumptions and calculations. Cancer risk must be separately calculated for specified age groups, because of age differences in sensitivity to carcinogens and age differences in intake rates (per kilogram body weight). Separate risk estimates for these age groups provide a health-protective estimate of cancer risk by accounting for greater susceptibility in early life, including both age-related sensitivity and amount of exposure.

[10] United States Environmental Protection Agency, *User's Guide for the AERMOD Terrain Preprocessor (AERMAP),* https://www3.epa.gov/scram001/models/aermod/aermap/aermap_userguide_v11105.pdf, accessed March 30, 2018.

For the maximally exposed individual worker (MEIW), OEHHA recommends using an exposure duration of 25 years to estimate individual cancer risk for the off-site worker scenario. This duration represents approximately the 95th percentile of job tenure with the same employer in the U.S.[11] In addition, the MEIW worker exposure durations of 9-years and 70-years were analyzed.

There are many assumptions involved in risk assessment. Some of the assumptions are supported by considerable scientific evidence, while others have less support. Every assumption introduces some degree of uncertainty into the risk assessment process. Conservative assumptions are made throughout the risk assessment to ensure that the health of the workers is protected. Therefore, when all of the assumptions are combined, it is much more likely that actual risks, if any, are overestimated rather than underestimated.

Chronic Non-Cancer Hazard

Non-cancer chronic impacts are calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. Based off OEHHA guidance, the current REL for DPM is 5[12]. Refer to Appendix C for assumptions and calculations.

Acute Non-Cancer Hazard

The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. Currently, OEHHA has not set an Acute REL for DPM. To be conservative, the acute REL for Acrolein is used instead, as Acrolein is a major component of diesel exhaust and is considered the worst case acute REL for diesel exhaust emissions. Refer to Appendix C for assumptions and calculations.

Carcinogenic Risk

Based on the AERMOD outputs, the highest expected hourly average diesel PM_{10} emission concentrations at the Project site resulting from locomotives on the SCRRA railway south of the Project site would be 0.020 µg/m^3. The highest expected annual average diesel PM_{10} emission concentrations at the Project site would be 0.006 µg/m^3. The calculations conservatively assume no cleaner technology with lower emissions in future years. Cancer risk calculations are based off the required 25-year exposure period for workers and an additional analysis of the 9-year and 70-year exposure periods. As shown in Table 5.1-6, *Worker Cancer Health Risk at Project Site*, the highest calculated worker carcinogenic risk as a result of the Project is 1.61 per million for the 25-year exposure, 0.60 per million for 9-year exposure, and 4.52 per million for 70-year exposure. As shown, worker cancer health risk impacts related to DPM concentrations from locomotive activity on the SCRRA railway by the Project site would be less than significant.

[11] California Air Resources Board, *User Manual for the Hotspots Analysis and Reporting Program Health Risk Assessment Standalone Tool Version 2*, https://www.arb.ca.gov/toxics/harp/docs2/harp2rastuserguide.pdf, accessed April 2, 2018.

[12] California Air Resources Board, *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Value*, https://www.arb.ca.gov/toxics/healthval/contable.pdf, accessed April 3, 2018.

Table 5.1-6
Worker Cancer Health Risk at Project Site

MEIW Exposure Scenario	Maximum Cancer Risk (Risk per Million)[1]	Significance Threshold (Risk per Million)	Exceeds Significance Threshold?
9-year	0.60	10	No
25-year	1.61	10	No
70-year	4.52	10	No

Notes:
1. The maximum cancer risk would be experienced along the southwest tip of the Project site at coordinate UTM NAD83 Zone 11 NN X = 375815.25, Y= 3784369.82. It is conservatively assumed that the maximum cancer risk would be experienced over the entire Project site in this analysis.

Source: Refer to Appendix C for modeling results and assumptions.

Non-Carcinogenic Risk

The significance thresholds for TAC exposure also require an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the REL for that substance. The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer impacts is similar to the procedure for chronic non-cancer impacts.

An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the reference exposure level. The highest maximum chronic and acute hazard index associated with the DPM emissions from the SCRRA railway south of the Project would be 0.008 and 0.001, respectively. Therefore, non-carcinogenic hazards are calculated to be within acceptable limits and a less than significant impact would occur.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

CONSISTENCY WITH REGIONAL PLANS

AQ-4 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN.

Impact Analysis: On March 3, 2017, the SCAQMD Governing Board adopted the 2016 AQMP, that incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, RTP/SCS, and updated emission inventory methodologies for various source categories. According to the SCAQMD's CEQA Air Quality Handbook, two main criteria must be addressed.

CRITERION 1

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations?

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency.

As previously discussed, localized concentrations of CO, NO_X, PM_{10}, and $PM_{2.5}$ would be less than significant during Project operations. Therefore, the Project would not result in an increase in the frequency or severity of existing air quality violations. Because ROGs are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in O_3 formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

b) Would the project cause or contribute to new air quality violations?

As previously discussed, Project operational emissions would not exceed SCAQMD operational thresholds. Therefore, the proposed Project would not have the potential to cause or affect a violation of the ambient air quality standards.

c) Would the project be consistent with the land use planning strategies set forth in the AQMP?

The Project would result in less than significant impacts with regard to localized concentrations during operations. As such, the Project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

CRITERION 2

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 Basin focuses on 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 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

In the case of the 2016 AQMP, three sources of data form the basis for the projections of air pollutant emissions: Burbank2035, SCAG's *Growth Management* Chapter of the *Regional*

Comprehensive Plan (RCP), and SCAG's RTP/SCS. The RTP/SCS also provides socioeconomic forecast projections of regional population growth.

The Project site is designated Regional Commercial by the General Plan and zoned Planned Development (PD) 89-7 (PD 89-7) by the City's Zoning Ordinance. The Project proposes an amendment to the Development Agreement for PD 89-7 to extend the term ten additional years, from May 10, 2018 to May 10, 2028. The proposed amendment is needed to secure the previously approved entitlements for the remaining 160,447 adjusted gross square feet of PD 89-7 (622,553 adjusted gross square feet have already been developed). The Project proposes to develop the remaining 160,447 adjusted gross square feet into an office building (Phase 6) consistent with the General Plan, Zoning, and development previously anticipated for the Project site. Thus, the proposed Project is consistent with the land use designation and zoning for the site.

Further, the proposed Project is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the RCP. The population, housing, and employment forecasts that are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City; these are used by SCAG in all phases of implementation and review. As concluded in Section 6.3, *Growth Inducing Impacts*, the forecast population and household growth attributed to the Project is considered less than significant, since the proposed Project would not cause SCAG's housing and population forecasts to be exceeded. As the SCAQMD has incorporated these same projections into the 2016 AQMP, it can be concluded that the Project would be consistent with the projections.

b) *Would the project implement all feasible air quality mitigation measures?*

The Project would be required to comply with applicable emission reduction measures identified by the SCAQMD. These measures have been included as Project Conditions of Approval. Thus, the Project meets this 2016 AQMP consistency criterion.

c) *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

The Project would serve to implement various City and SCAG policies. The Project is located within a developed portion of the City and is considered an infill development. The Project site is located in the vicinity of a mix of commercial and residential uses. The Project would be consistent with the 2016 AQMP consistency criterion.

In conclusion, the determination of 2016 AQMP consistency is primarily concerned with a project's long-term influence on the Basin's air quality. The Project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Also, the Project would be consistent with the 2016 AQMP's goals and policies for control of fugitive dust. As discussed above, the Project's long-term influence would also be consistent with the SCAQMD and SCAG's goals and policies and is, therefore, considered consistent with the 2016 AQMP. Impacts associated with compliance with the 2016 AQMP would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.1.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed Project to the extent that a significant cumulative effect may occur. The following discussions are included per topic area to determine whether a significant cumulative effect would occur.

SHORT-TERM (CONSTRUCTION) AIR EMISSIONS

- **SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS, WOULD RESULT IN INCREASED AIR POLLUTANT EMISSION IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO INCREASED POLLUTANT CONCENTRATIONS.**

Impact Analysis: The SCAQMD neither recommends quantified analyses of cumulative construction emissions, nor does it provide separate methodologies or thresholds of significance to be used to assess cumulative construction impacts. The SCAQMD significance thresholds for construction are intended to meet the objectives of the 2016 AQMP to ensure the NAAQS and CAAQS are not exceeded. As the Project applicant has no control over the timing or sequencing of the related projects, any quantitative analysis to ascertain the daily construction emissions that assumes multiple, concurrent construction would be speculative. In addition, construction-related criteria pollutant emissions are temporary in nature and cease following Project completion. Project compliance with SCAQMD rules and regulations and mitigation measures (implemented through Project conditions of approval) would reduce construction-related impacts to less than significant levels. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted 2016 AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include each of the related projects listed in Section 4.0, *Basis of Cumulative Analysis*. Therefore, as cumulative projects would be required to reduce their emissions per SCAQMD rules and mandates, cumulative construction emissions would not contribute to an exceedance of the NAAQS and CAAQS, and therefore would comply with the goals of the 2016 AQMP. Thus, it can be reasonably inferred that the Project-related construction activities, in combination with those from other projects in the area, would not deteriorate the local air quality and would not result in cumulative construction-related impacts.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (OPERATIONAL) AIR EMISSIONS

- **THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS WOULD RESULT IN INCREASED IMPACTS PERTAINING TO OPERATIONAL AIR EMISSIONS.**

Impact Analysis: The SCAQMD has set forth both a methodological framework as well as significance thresholds for the assessment of a project's cumulative operational air quality impacts. The SCAQMD's approach for assessing cumulative impacts is based on the SCAQMD's 2016 AQMP forecasts of attainment of NAAQS in accordance with the requirements of the Federal and State CAAs. This forecast also takes

into account SCAG's 2016 AQMP forecasted future regional growth. As such, the analysis of cumulative impacts focuses on determining whether the proposed Project is consistent with the growth assumptions upon which the SCAQMD's 2016 AQMP is based. If the Project is consistent with the growth assumptions, then future development would not impede the attainment of NAAQS and a significant cumulative air quality impact would not occur.

As discussed above, the proposed Project would not result in long-term air quality impacts, as the Project's operational emissions would not exceed the SCAQMD adopted operational thresholds. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Emission reduction technology, strategies, and plans are constantly being developed. As a result, the proposed Project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, cumulative operational impacts associated with the implementation of the proposed Project would be less than significant**.**

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LOCALIZED EMISSIONS

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT AND OTHER CUMULATIVE PROJECTS COULD RESULT IN LOCALIZED EMISSIONS IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS.**

Impact Analysis: As stated above, the LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST screening lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. Because the disturbed acreages for each cumulative project site can vary, the LST thresholds utilized vary on a project-by-project basis. Localized emissions also only affect the areas immediately adjacent to the Project site. Thus, construction and operational localized emissions associated with the proposed Project would not cumulatively contribute pollutant concentrations to the same sensitive receptors as other cumulative projects. Further, as identified above, Project construction and operational source emissions would not exceed applicable LSTs. Although unmitigated construction and operational emissions would already be under LST thresholds, implementation of the Project Conditions of Approval would further reduce emissions to an even lesser level of insignificance. In addition, the Project's proximity to the SCRRA railway does not have a cumulative health risk impact and would not exceed the threshold for on-site sensitive receptors. Thus, the Project's construction, operational localized emissions, and health risk impacts would not significantly cumulatively contribute towards exposing sensitive receptors to substantial pollutant concentrations.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

CONSISTENCY WITH REGIONAL PLANS

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN.**

Impact Analysis: The City of Burbank is subject to the 2016 AQMP. Additionally, the City is located within the Los Angeles County subregion of the SCAG's RTP/SCS, which governs population growth. The General Plan is consistent with the RTP/SCS, and since the RTP/SCS is consistent with the 2016 AQMP, growth under the General Plan is consistent with the 2016 AQMP. It should be noted that the Project proposes an amendment to the Development Agreement for PD 89-7 to extend the term ten additional years, from May 10, 2018 to May 10, 2028. The proposed amendment is needed to secure the previously approved entitlements for the proposed Project (PD 89-7 Phase 6). Thus, the proposed Project is consistent with the development potential previously anticipated for the Project site by the General Plan and is therefore consistent with the 2016 AQMP. Further, Project construction and operational emissions would remain below SCAQMD thresholds. As such, the Project would not significantly cumulatively contribute to impacts in this regard, and implementation of Project conditions of approval would result in a less than significant impact.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.1.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to air quality have been identified following implementation of Project Conditions of Approval referenced in this section.