

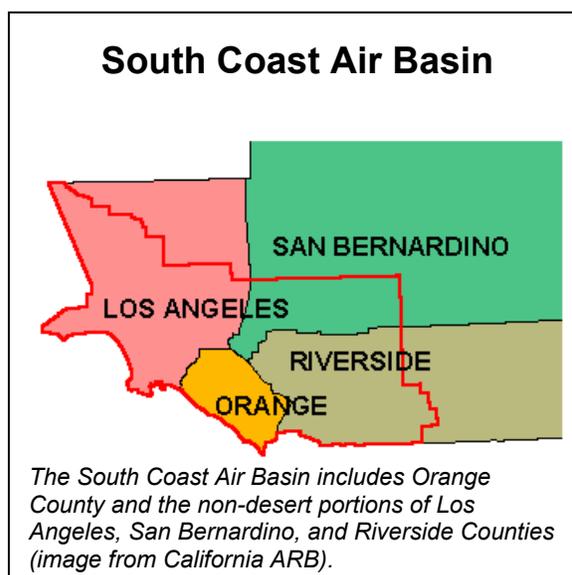
## 3.2 AIR QUALITY

This section evaluates the potential impacts of the Fountain Valley Crossings Specific Plan Project (Project) on air quality in the Project area and the South Coast Air Basin (Basin). This evaluation includes both short-term construction impacts and long-term operational impacts of the proposed construction and operation at buildout of the Project. An analysis of greenhouse gas (GHG) emissions and associated impacts is included in Section 3.4, *Greenhouse Gas Emissions*. Information for this section was derived from the United States Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), the South Coast Air Quality Management District (SCAQMD), and from emissions modeling using the California Emission Estimator Model (CalEEMod) conducted for the Project's construction and operations (including traffic). This modeling has been adjusted from that provided in the pre-recirculation Final EIR released in April 2017 to reflect an updated air pollutant modeling analysis utilizing an updated version of CalEEMod (Version 2016.3.1), to provide clarification on the level of Project impacts to air quality and reliance on identified mitigation measures, to reflect changes in the Fountain Valley Crossings Specific Plan Transportation Impact Analysis (TIA) prepared by Fehr & Peers and amended in September 2017 (Appendix E), and to provide expanded discussion on the Project's compliance with adopted SCAQMD Rules. Appendix D of the Partial Recirculated Draft EIR has been updated to include the revised CalEEMod emissions calculations. In addition, these revisions have been provided to include consideration of plans and programs which had been adopted after release of the initial Notice of Preparation and during development of the Draft and pre-recirculation Final EIR, such as the most recently adopted 2016-2040 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (adopted in April 2016) and the most recently adopted Air Quality Management Plan (AQMP) (adopted in March 2017). The revised air pollutant modeling is reflected throughout the setting and analysis, including Tables 3.2-3, 3.2-7 and 3.2-8.

### 3.2.1 Environmental Setting

#### Location and Climate

The City of Fountain Valley (City) is in the western portion of Orange County (County), which is within the South Coast Air Basin (Basin). The Basin is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east that trap air and its pollutants in the valleys below, making the Basin an area of high air pollution potential. The air quality within the Basin is influenced by a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, industry, and weather.



The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The City is in the western coastal portion of the Basin, which has moderate variability in temperatures, with average monthly highs from 69 to 85 degrees Fahrenheit (°F) and lows from 46 to 64°F (WRCC 2016). The majority of annual rainfall in the Basin occurs between December and March, and the annual average total of rainfall in the City is 13.84 inches (City of Fountain Valley 2016).

The Basin frequently experiences weather conditions that trap air pollutants within the Basin. First, the Basin has persistent temperature inversions formed by warmer air in the upper layer and cooler air in the lower layer. Temperature inversions limit the vertical dispersion of air contaminants, holding them relatively near the ground. These inversions break when the sun heats the lower layer, allowing the two layers to mix and the previously trapped air to leave the basin. Second, the Basin experiences periods of stagnant wind conditions, which also limit the movement of air pollutants. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. Conversely, on days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest.

#### **Air Pollutants**

Air pollutant emissions within the Basin are generated from a variety of stationary, mobile, and natural sources—from large oil refineries and small businesses such as dry cleaners, to domestic uses such as barbecues and gas powered lawn tools (City of Fountain Valley 1995). Mobile sources, including motor vehicles, aircraft, ships, trains, and construction equipment account for most of the air pollutant emissions within the Basin. Construction activities that create fugitive dust such as excavation and grading also contribute to emissions. Air pollutants can also be generated when winds entrain dust particles from the ground surface into the air.

To protect the public health and welfare, the federal and state governments have identified six criteria air pollutants and a host of air toxics, and established ambient air quality standards through the federal Clean Air Act and the California Clean Air Act. The air pollutants for which federal and state standards have been circulated and that are most relevant to air quality planning and regulation in the air basins include ozone, carbon monoxide, suspended particulate matter, fine particulate matter, nitrogen dioxide, sulfur dioxide, and lead. In addition, there are toxic air contaminants which are of concern in the Basin. These pollutants are described as follows (refer to Table 3.2-1 for federal and state standards):

**Table 3.2-1. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin Criteria Pollutants**

	Averaging Period	California Standard	Federal Standard	Criteria Pollutant Attainment Level Summary	
		CAAQS	NAAQS	California	Federal
<b>Ozone (O<sub>3</sub>)</b>	1 hour	0.09 ppm	0.12 ppm <sup>a</sup>	Nonattainment	Extreme Nonattainment
	8 hour <sup>b</sup>	0.07 ppm	0.070 ppm	Nonattainment	Designations Pending
<b>Respirable Particulate Matter (PM<sub>10</sub>) (1987)</b>	24 hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Nonattainment	Attainment as Serious Maintenance Area
	Annual	20 µg/m <sup>3</sup>	-		
<b>Fine Particulate Matter (PM<sub>2.5</sub>) (2006, 2012)</b>	24 hour	-	35 µg/m <sup>3</sup>	Nonattainment	Serious Nonattainment
	Annual	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>		
<b>Lead (Pb) (2015)</b>	3 month rolling average	-	0.15 µg/m <sup>3</sup>	-	Partial Nonattainment
<b>Carbon Monoxide (CO)</b>	1 hour	20 ppm	35 ppm	Attainment	Attainment as Serious Maintenance Area
	8 hour	9 ppm	9 ppm		
<b>Nitrogen Dioxide (NO<sub>2</sub>)<sup>c</sup></b>	1 hour	0.18 ppm	0.10 ppm	Attainment	Unclassifiable/Attainment
	Annual	0.03 ppm	0.053 ppm	Attainment	Attainment (Maintenance)
<b>Sulfur Dioxide (SO<sub>2</sub>)<sup>d</sup></b>	1 hour	-	75 ppb	Attainment	Attainment
	3 hour	-	0.5 ppm		
	24 hour	-	-		
	Annual	-	-		

Notes: USEPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable.

<sup>a</sup>1-hour O<sub>3</sub> standard (0.12 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard based on 2008-2010 data and is still subject to anti-backsliding requirements.

<sup>b</sup>1997 8-hour O<sub>3</sub> standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the revoked 1997 O<sub>3</sub> standard is still subject to anti-backsliding requirements.

<sup>c</sup>New NO<sub>2</sub> 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO<sub>2</sub> standard retained.

<sup>d</sup>The 1971 annual and 24-hour SO<sub>2</sub> standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after USEPA promulgates area designations for the 2010 SO<sub>2</sub> 1-hour standard.

Source: CARB 2016.

### Pollutants

- **Ozone (O<sub>3</sub>):** O<sub>3</sub> is a gas that is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO<sub>x</sub>) and reactive organic gases (ROGs), also referred to as volatile organic compounds (VOCs). NO<sub>x</sub> is formed during the combustion of fuels, while ROGs are formed during combustion and evaporation of organic solvents. Conditions that produce high concentrations of ozone are direct sunshine, stagnation in source areas, high ground surface

temperatures, and a strong inversion layer that restricts vertical mixing. O<sub>3</sub> concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable.

O<sub>3</sub> is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

- **Carbon Monoxide (CO):** CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest near congested transportation corridors and intersections, especially during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels.

CO's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

- **Respirable Particulate Matter (PM<sub>10</sub>) and Fine Particulate Matter (PM<sub>2.5</sub>):** PM<sub>10</sub> and PM<sub>2.5</sub> consist of extremely small, suspended particles or droplets with diameters less than 10 microns and less than 2.5 microns, respectively. PM<sub>10</sub> generally comes from windblown dust and dust entrained from mobile sources, while PM<sub>2.5</sub> is generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. Most particulate matter in urban areas is produced by fuel combustion, motor vehicle travel, and construction activities.

Children, the elderly, and people with pre-existing respiratory or cardiovascular disease appear to be more susceptible to the effects of high levels of PM<sub>10</sub> and PM<sub>2.5</sub>. Potential impacts of elevated levels of PM<sub>10</sub> and PM<sub>2.5</sub> include increased mortality rates, respiratory infections, number and severity of asthma attacks, and number of hospital admissions. Daily fluctuations in PM<sub>2.5</sub> concentration levels have been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter.

- **Nitrogen Dioxide (NO<sub>2</sub>):** Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO<sub>2</sub> at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO<sub>2</sub> in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.
- **Sulfur Dioxide (SO<sub>2</sub>):** SO<sub>2</sub> is a colorless, extremely irritating gas or liquid. The largest sources of SO<sub>2</sub> are fossil fuel combustion at power plants and other industrial facilities. Smaller sources

of SO<sub>2</sub> emissions include industrial processes such as extracting metal from ore, and the burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment.

SO<sub>2</sub> is linked with a number of adverse effects on the respiratory system. Asthmatics are particularly sensitive to SO<sub>2</sub>, with only a few minutes of exposure to low levels of the gas potentially resulting in airway constriction.

- **Lead:** Lead occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the Basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles; therefore, most lead combustion emissions are associated with aircraft and some racing and off-road vehicles. Substantial lead emissions also occur in the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters. However, from 1970 to 2005, lead emissions in the US dropped by 99 percent (USEPA 2016).

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased levels of lead are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death, although it appears that there are no direct effects of lead on the respiratory system.

- **Toxic Air Contaminants (TACs)** TACs are a diverse group of air pollutants including both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the criteria pollutants previously discussed in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effects on health vary greatly and tend to be local rather than regional. CARB has designated nearly 200 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control.

TACs are capable of causing chronic and acute adverse effects on human health. These health impacts include increased risk of cancer due to continual inhalation of toxic air pollutants. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds, the most important being particulate matter from diesel-fueled engines.

### **Odors**

- **Odors** are not regulated under the federal or state Clean Air Acts; however, they are considered under the California Environmental Quality Act (CEQA). Odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, the ROG<sub>s</sub> that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

### **Regional Air Quality**

Measurements of ambient concentrations of criteria pollutants are used by the USEPA and the CARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific developed area. The classification is determined by comparing monitoring data with national and California air quality standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in “attainment.” If the pollutant exceeds the standard, the area is in marginal, moderate, serious, severe, or extreme “nonattainment,” depending on the magnitude of the air quality standard exceedance. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated “unclassified.”

### **Local Air Quality**

#### ***Ambient Air Quality***

In an effort to monitor the various concentrations of air pollutants throughout the basin, the SCAQMD has divided the region into 38 Source Receptor Areas (SRAs). The City is within SRA 17, which covers Central Orange County. The nearest monitoring stations to the Project area are at the Costa Mesa Monitoring Station and the Anaheim Monitoring Station. Ambient air pollutant concentrations are generally measured at 10 feet above ground level. Therefore, air quality is often referred to as ground level concentrations. Of the air pollutants discussed previously, only ambient concentrations of O<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, NO<sub>2</sub>, and SO<sub>2</sub> are monitored in SRA 17.

Table 3.2-2 identifies the national and state ambient air quality standards for relevant air pollutants and provides a summary of ambient air quality measured within SRA 17 at either the Costa Mesa or Anaheim Monitoring Stations through the period of 2013 to 2015.

#### ***Project Area Emissions***

The Project area is currently occupied with various light industrial, retail, and office land uses that generate operational pollutant emissions associated with the building’s energy needs and vehicle trips generated by employees and visitors to the Project area. The estimated annual operational air emissions associated with the existing uses at the Project area have been calculated utilizing the California Emissions Estimator Model (CalEEMod ~~v. 2013.2.2~~ v. 2016.3.1) recommended by the SCAQMD and are shown in Table 3.2-3.

The estimated operational air emissions associated with the existing uses at the Project area but at the buildout year of 2035 instead of 2016 have also been calculated using CalEEMod. The comparison of the Project’s operational emissions to these “No Project” operational emissions is discussed in Section 5.4.1, *No Project Alternative*.

Table 3.2-2. Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Primary Standard		Year	Maximum Concentration	Number of Days State/Federal Std. Exceeded
	California	Federal			
<b>Carbon Monoxide (CO) (1-Hour)</b>	20 ppm for 1 hour	35 ppm for 1 hour	2013	6.5 ppm	0/0
			2014	4.0 ppm	0/0
			2015	3.1 ppm	0/0
<b>Carbon Monoxide (CO) (8-Hour)</b>	9.0 ppm for 8 hours	9.0 ppm for 8 hours	2013	2.0 ppm	0/0
			2014	2.8 ppm	0/0
			2015	2.4 ppm	0/0
<b>Ozone (O<sub>3</sub>) (1-Hour)</b>	0.09 ppm for 1 hour	0.12 ppm for 1 hour	2013	0.104 ppm	5/-
			2014	0.119 ppm	7/-
			2015	0.103 ppm	5/-
<b>Ozone (O<sub>3</sub>) (8-Hour)</b>	0.07 ppm for 8 hours	0.075 ppm for 8 hours	2013	0.084 ppm	7/3
			2014	0.089 ppm	11/7
			2015	0.088 ppm	13/4
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>	0.18 ppm for 24 hours	0.10 ppm for 24 hours	2013	0.085 ppm	0/-
			2014	0.060 ppm	0/-
			2015	0.055 ppm	0/-
<b>Particulate Matter (PM<sub>10</sub>)</b>	50 µg/m <sup>3</sup> for 24 hours	150 µg/m <sup>3</sup> for 24 hours	2013	91.0 µg/m <sup>3</sup>	10/0
			2014	120.0 µg/m <sup>3</sup>	13/0
			2015	66.5 µg/m <sup>3</sup>	10/0
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>	No Separate State Standard.	35 µg/m <sup>3</sup> for 24 hours	2013	47.8 µg/m <sup>3</sup>	-/4
			2014	56.3 µg/m <sup>3</sup>	-/12
			2015	53.8 µg/m <sup>3</sup>	-/9

Note: - = Information not available.

Source: CARB 2015.

Table 3.2-3. Existing Project Area Operational Emissions (Unmitigated)

	VOCs (ROG)	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Area (lbs/day)</b>	<del>77.90</del> <u>66.56</u>	<0.01	0.31	<0.01	<0.01	<0.01
<b>Energy (lbs/day)</b>	<del>0.83</del> <u>0.80</u>	<del>7.55</del> <u>7.27</u>	<del>6.34</del> <u>6.11</u>	<del>0.05</del> <u>0.04</u>	<del>0.57</del> <u>0.55</u>	<del>0.57</del> <u>0.55</u>
<b>Mobile (lbs/day)</b>	<del>113.69</del> <u>58.75</u>	<del>236.04</del> <u>223.23</u>	<del>1,104.59</del> <u>744.21</u>	<del>2.64</del> <u>2.00</u>	<del>191.22</del> <u>156.25</u>	<del>53.03</del> <u>43.67</u>
<b>Total (lbs/day)</b>	<del>192.42</del> <u>126.11</u>	<del>243.59</del> <u>230.51</u>	<del>1,111.24</del> <u>750.63</u>	<del>2.69</del> <u>2.04</u>	<del>191.79</del> <u>156.80</u>	<del>53.60</del> <u>44.22</u>
<b>Thresholds (lbs/day)</b>	55	55	550	150	150	55

Note: Refer to Appendix D for CALFEEMOD output sheets. Emissions based on rounded totals. SCAQMD Thresholds discussed in Section 3.2.3 below. This table has been updated from that provided in the pre-recirculation Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalFEEMod (Version 2016.3.1).

### Sensitive Receptors

Sensitive receptors are populations that are more susceptible to the effects of air pollution than are the population at large. According to CARB, sensitive receptors include children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. While the ambient air quality standards are designed to protect public health and are generally regarded as conservative for healthy adults, there is greater concern to protect adults who are ill or have long-term respiratory problems, and young children whose lungs are not fully developed. The SCAQMD identifies the following as locations that may contain a high concentration of sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds and parks with active recreational uses, childcare centers, and athletic facilities.

The City contains a large number of sensitive receptors outside of the Project area but within the Project vicinity, including several schools, residences, parks, and places of worship. Those uses that are more than 0.3 mile away are not considered further in this analysis. The nearest sensitive receptors include the residential complexes to the north, west, and southwest of the Project area. Table 3.2-4 below describes the sensitive receptors nearest to the Project area.

**Table 3.2-4. Sensitive Receptors located near the Project Area**

Type	Name	Distance from Project area (miles)	Direction from Project area
<b>Residential</b>	Green Valley Neighborhood	0.01	North
	Los Alamos Park Neighborhood	0.5	Northwest
	Adobe River Ave Neighbored	0.01	West
	R. Gisler School Neighborhood	0.02	Southwest
<b>Schools</b>	James H. Cox School	0.38	North
	Elite Educational Center	0.39	Northwest
	Fountain Valley Montessori	0.38	West
	Shoreline Christian School	0.17	Southwest
	Robert Gisler Elementary School	0.3	Southwest
	Diane's Day Care	0.17	Northwest
	Kazuo Masuda Middle School	0.58	North
<b>Parks</b>	Moon Park	0.12	Southeast
	Ellis Park	0.2	West
	Suburbia Park	0.16	East
	Los Alamos Park	0.33	Northwest
<b>Places of Worship</b>	St. Barnabas Orthodox Church	0.12	East
	Shoreline Baptist Church	0.25	Southwest
	Jehovah's Witnesses	0.44	North
	Assemblies of God Churches	0.45	North

### 3.2.2 Regulatory Framework

Air quality within the Basin is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the air basins are discussed below.

#### Federal

##### ***United States Environmental Protection Agency***

The USEPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The USEPA also maintains jurisdiction over emissions sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the USEPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

The SIP serves two main purposes:

1. Demonstrate that the state has the basic air quality management program components in place to ensure consistency with a new or revised NAAQS.
2. Identify emissions control requirements the state will rely upon to attain and/or maintain the primary and secondary NAAQS.

Additionally, the USEPA regulates emissions sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The USEPA also maintains jurisdiction over emissions sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

Some of the major federal laws include the following statutes (and regulations promulgated there under):

- Clean Air Act and Amendments (1970, 1977, 1990)
- National Emission Standards for Hazardous Air Pollutants 40 CFR 61 Subpart M – (NESHAP)
- NAAQS (40 CFR Part 50)

## State

### **California Air Resources Board**

CARB, derived from the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In April 2005, CARB issued a guidance document on air quality and land use, *Air Quality and Land Use Handbook: A Community Health Perspective*, which recommends that sensitive land uses not be located within 500 feet of a freeway or other high traffic roadway and that a site-specific health risk assessment be performed as a way to more accurately evaluate the risk. In traffic-related studies, the additional non-cancer health risk attributable to proximity to high-volume roadways was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70 percent drop-off in particulate pollution levels at 500 feet.

Some of the major state laws and regulation include the following statutes (and regulations promulgated there under):

- California Clean Air Act (1988);
- CAAQS (California Health & Safety Code section 39606);
- Global Warming Solutions Act (AB 32, 2006); and
- Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987).

## Regional

### **South Coast Air Quality Management District**

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with the ~~Southern California Association of Governments (SCAG)~~, County transportation commissions, and local governments, and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

**The 2012 AQMP standards call for a:**

- 24-hour PM<sub>2.5</sub> Plan
- 8-hour ozone additional measures and vehicle miles traveled (VMT) offset demonstration
- 1-hour ozone attainment demonstration and VMT offset demonstration

SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and natural sources. It has responded to this requirement by preparing a series of AQMPs.

The most recent AQMP was adopted by the Governing Board of SCAQMD on March 3, 2017, approximately one month prior to issuance of pre-recirculation Final EIR in April 2017. This AQMP, referred to as the 2016 AQMP, was prepared to comply with the CAA and CCAA, and amendments, to accommodate growth, to reduce the high pollutant levels in the Basin, to meet federal and state ambient air quality standards, and to analyze the impact of existing pollution control measures. The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The most recent AQMP was adopted by the Governing Board of SCAQMD on December 7, 2012. This AQMP, referred to as the 2012 AQMP, was prepared to “lead the Basin into compliance with the federal 24-hour PM<sub>2.5</sub> air quality standard, and to provide an update to the Basin’s commitments towards meeting the federal 8-hour ozone standards. It will also serve to satisfy recent USEPA requirements for a new attainment demonstration of the revoked 1-hour ozone standard, as well as a vehicle miles traveled (VMT) emissions offset demonstration.” It identifies control measures that will be implemented to reduce major sources of pollutants. These planning efforts have substantially decreased the population’s exposure to unhealthful levels of pollutants, even while substantial population growth has occurred within the Basin.

### **SCAQMD Rule Book**

The SCAQMD Rule Book establishes a set of rules and regulations that address air pollution sources. Some SCAQMD rules are administrative in nature, but many relate to a specific type of operation or source of pollution. Because knowledge about air pollution is constantly growing, these rules and regulations are in a dynamic state, constantly changing. Each regulation is broken down into a number of rules, each of which deals with a specific topic. SCAQMD rules that apply to the Project include:

- Rule 402 Nuisance – This rule prohibits discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 Fugitive Dust – The purpose of this rule is to reduce the amount of particulate matter (e.g., PM<sub>10</sub>) entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources, such as grading and excavation, by requiring actions to prevent, reduce or mitigate fugitive dust emissions.
- Rule 445 Wood Burning Devices – This rule prohibits any person to permanently install a wood-burning device (such as fire place or wood burning heater) into any new development.
- Rule 1113 Architectural Coatings – This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating

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categories. For example, exterior paints and finishes are limited to a VOC emissions rate of 50 grams per liter (g/L).

- Rule 1186  $PM_{10}$  Emissions from Paved and Unpaved Roads – This rule applies to owners and owners of paved and unpaved roads. The rule is intended to reduce  $PM_{10}$  emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads.
- Rule 1401 New Source Review of Toxic Air Contaminants – This rule specifies limits for maximum individual cancer risk (MICR) cancer burden, and non-cancer acute and chronic hazard index (HI) from new sources which emit toxic air contaminants.

#### **SCAQMD CEQA Air Quality Handbook**

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 plans and new development projects within its jurisdiction. Instead, the SCAQMD has used its expertise and prepared the CEQA Air Quality Handbook (1993). Over the years, the SCAQMD has supplemented the CEQA Air Quality Handbook with updated/new thresholds of significance published on its website. The purpose of the CEQA Air Quality Handbook and updated/newer thresholds of significance is to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects and plans proposed in the Basin. The CEQA Air Quality Handbook and newer thresholds of significance provide direction on how to evaluate potential air quality impacts in CEQA documents, how to determine whether these impacts are significant, and how to mitigate these impacts. The SCAQMD intends that by providing this guidance, the air quality impacts of plans and development proposals will be analyzed accurately and consistently throughout the region, and adverse impacts will be minimized. Although the Governing Board of the SCAQMD has adopted the CEQA Handbook, and is in the process of updating it, the SCAQMD does not, nor intends to, supersede a local jurisdiction's CEQA procedures.

#### ***Southern California Association of Governments***

The SCAG is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. As required by SB 375, SCAG was tasked with developing a ~~Sustainable Communities Strategy (SCS)~~, a newly required element of the ~~Regional Transportation Plan (RTP)~~ that provides a plan for meeting emissions reduction targets set forth by CARB. ~~SCAG's 2012-2035 RTP/SCS~~ SCAG's 2016-2040 RTP/SCS provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. Transportation strategies—managing transportation demand and making certain transportation system improvements—are major components of the ~~2012-2035~~ 2016-2040 RTP/SCS. However, the ~~2012-2035~~ 2016-2040 RTP/SCS also focuses on the general land use growth pattern for the region, because geographical

relationships between land uses—including density and intensity—help determine the need for travel. SCAG has placed a greater emphasis on sustainability and integrated planning in the ~~2012–2035~~ 2016-2040 RTP/SCS, whose vision encompasses three principles: mobility, economy, and sustainability. ~~In June 2012, CARB determined that SCAG's 2012-2035 RTP/SCS was consistent with their greenhouse gas reduction targets.~~ Refer to Section 3.4.2 for a discussion of SB 375.

## **Local**

### ***City of Fountain Valley***

As a local jurisdiction, the City has the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the AQMP. In order to respond to these needs the City has established long term Goals and Policies in its 1995 *General Plan* to oversee the enforcement of pollution reduction:

**Goal 8.1** Air quality which meets the standards set by the state and federal governments.

**Policy 8.1.1.** Coordinate with other jurisdictions in Orange County and the surrounding area to establish parallel air quality plans and programs.

**Policy 8.1.2.** Achieve conformance with mandated pollution reduction plans, congestion management plans, and transportation demand management plans.

**Policy 8.1.3.** Promote the use of the bus, rail, high occupancy vehicles, and other forms of transit to reduce pollutants.

**Policy 8.1.4.** Cooperate with other jurisdictions in the South Coast Air Basin to reduce the number of vehicle trips, reduce vehicle miles traveled, and reduce traffic congestion.

**Policy 8.1.5.** Reduce polluting emissions through reduced energy consumption.

Other policy tools the City has used to meet its Goal 8.1 include a Growth Management and Transportation Task Force comprised of elected officials, transportation agencies, and public and private sector organizations to implement all AQMPs. This group has initiated:

- A Growth Management Plan by creating VMT and congestion reduction targets, the creation of a Regional Mobility Plan to remove hindrances to inter-county regional transit, increasing available funds to transit programs, and expanding HOV networks;
- The creation of Market Incentives to improve education of guidelines to local agencies; and
- The formation of a Commuter Program for businesses with greater than 100 employees to set an average vehicle ridership goal, ranging from 1.3-1.75 per vehicle.

In accordance with CEQA requirements<sup>1</sup> and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation. The City has also adopted standard construction mitigation measure requirements for all development and monitors compliance with these standards.

### 3.2.3 Impact Assessment and Methodology

#### 3.2.3.1 Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2016 CEQA Guidelines. For purposes of this Environmental Impact Report (EIR), implementation of the Project may have a significant adverse impact on air quality if it would do any of the following:

- a) Conflict or obstruct the implementation of the applicable air quality plan;
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- c) Result in a cumulatively considerable net increase to any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. This includes releasing emissions which exceed quantitative standards for ozone precursors;
- d) Expose sensitive receptors to substantial pollution concentrations;
- e) Create objectionable odors affecting a substantial number of people.

The SCAQMD is principally responsible for comprehensive air pollution control in the South Coast Air Basin and recommends that projects should be evaluated in terms of air pollution control thresholds established by the SCAQMD and published in the *CEQA Air Quality Handbook*. These thresholds were developed by the SCAQMD to provide quantifiable significance levels for comparison with projects. The City utilizes the SCAQMD's thresholds to evaluate proposed development projects and assess the significance of quantifiable impacts. The following quantifiable thresholds are currently recommended by the SCAQMD and have been used to determine the significance of air quality impacts associated with the Project.

#### ***Construction Emissions Thresholds***

The SCAQMD currently provides project-specific thresholds for construction-related emissions (see Table 3.2-5). The thresholds state that a project that exceeds any of the following regional (mass daily) emissions thresholds should be considered potentially significant.

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<sup>1</sup> SCAQMD, 2016 Air Quality Management Plan (2017).

**Table 3.2-5. SCAQMD Construction Significance Thresholds**

Air Pollutant	Construction Threshold
NO <sub>x</sub>	100 lbs/day
VOC	75 lbs/day
PM <sub>10</sub>	150 lbs/day
PM <sub>2.5</sub>	55 lbs/day
SO <sub>x</sub>	150 lbs/day
CO	550 lbs/day

Source: SCAQMD 2015.

### **Operational Emissions Thresholds**

The SCAQMD currently recommends that projects with operational emissions that exceed any of the following regional (mass daily) thresholds should be considered potentially significant (see Table 3.2-6).

**Table 3.2-6. SCAQMD Operation Significance Thresholds**

Air Pollutant	Operation Threshold
NO <sub>x</sub>	55 lbs/day
VOC	55 lbs/day
PM <sub>10</sub>	150 lbs/day
PM <sub>2.5</sub>	55 lbs/day
SO <sub>x</sub>	150 lbs/day
CO	550 lbs/day

Source: SCAQMD 2015.

### **Cumulative Impacts**

In order to assess cumulative impacts, the SCAQMD recommends that projects be evaluated to determine whether they would be consistent with ~~2012~~ 2016 AQMP performance standards and project-specific emissions thresholds. In the case of the Project, air pollutant emissions would be considered to be cumulatively considerable if the new sources of emissions exceeded SCAQMD emissions thresholds.

#### **3.2.3.2 Methodology**

This analysis focuses on the air quality impacts from air pollutant emissions associated with the construction and operation of the Project. Project-related emissions were estimated using the CalEEMod computer model developed for SCAQMD, and then compared to the thresholds of significance defined above. Air quality emissions estimates have been updated in the Partial Recirculated Draft EIR to utilize the latest version of CalEEMod issued after preparation of the pre-recirculation Final EIR in April of 2017, Version 2016.3.1, which includes updated assumptions on equipment, vehicle fleet mixes, Title 24 energy efficiency standards, utility

intensity demand factors, etc. Default emission assumptions were used with consideration of SCAQMD rules and regulations that the Project would be required to adhere to during construction and operation. Due to these factors, air pollutant emissions are now modeled to be below previous calculations contained in the pre-recirculation Final EIR (2017). See Appendix D for CalEEMod worksheet results.

#### ***Construction Emissions***

Construction emissions are estimated using CalEEMod which estimates emissions from each phase of construction, including demolition, excavation and site preparation, building construction, and architectural coating. Emission estimates are based on the types and amount of equipment that would be used in Project construction, the level of excavation required, the square footage of demolished buildings, the removal of demolition debris and soil, the size and type of new construction, construction schedule, and the vehicle trips generated.

Project construction would temporarily increase diesel emissions and would generate particulate matter (dust). Construction equipment within the Project area that would generate VOCs and NO<sub>x</sub> emissions could include graders, excavators, dump trucks, cranes, and bulldozers. It is assumed that all construction equipment used would be diesel powered and meet a minimum Tier 2 emission standard, providing a conservative estimate of construction vehicle emissions. Depending on the timing of entitlements and permit processing, construction activity for the Project would be conducted 6 days a week beginning in January 2018 and ending in January 2035 as follows:

- Demolition – 257 days
- Site Preparation – 180 days
- Grading – 400 days
- Building Construction – 4,077 days
- Architectural Coating – 409 days

#### ***Operational Emissions***

Operational emissions associated with the Project are estimated using CalEEMod for mobile source, area, and energy emissions. Mobile emissions would be generated by the motor vehicle trips to and from the Project area. Area source emissions would be generated by consumer products, architectural coating, and landscape maintenance equipment. Energy source emissions would be generated by emissions resulting from electricity and natural gas consumption for space and water heating. To determine if an air quality impact would occur, the increase in emissions from the Project itself are compared with the SCAQMD's regional (mass daily) thresholds.

### 3.2.4 Project Impacts and Mitigation Measures

#### Impact AQ-1 Description

**AQ-1 The Project would result in potentially significant short-term construction-related air quality impacts from dust and air pollutant emissions generated by grading and construction equipment operation (*Less than Significant*).**

Construction activities for the Project would include demolition, site preparation, grading, building construction, and architectural coating. The demolition and construction process is anticipated to occur over approximately 17 years (from early 2018 to early 2035). Temporary construction air pollutant emissions would be generated through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project area. In addition, fugitive dust emissions would result from demolition, earthwork, and construction activities. The finishing phase and the application of architectural coatings (i.e., paints) and other building materials would release VOCs.

As further discussed in Impact Description AQ-3 below, all construction occurring under the Project would occur in accordance with applicable regulations and plans to reduce emissions from construction activities, including SCAQMD Rule 403, SCAQMD Rule 1113, and SCAQMD Rule 1186. Site preparation, grading, and building construction would involve the greatest amount of heavy equipment and the greatest generation of fugitive dust given the large amount of new building construction associated with the Project. Air pollutant emissions, such as NO<sub>x</sub> and PM<sub>10</sub>, would be generated through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the Project area. As discussed in Section 3.2.3, *Impact Assessment and Methodology*, SCAQMD Rule 403 requires management of all fugitive dust (PM<sub>10</sub>) generated during Project construction. All heavy-haul trucks would be required to be covered to contain dirt, sand, soil, or other loose materials during transport. Wheel washers would be installed where vehicles enter and exit the construction site onto paved roads, and/or wash-off trucks would be required for any equipment leaving the site each trip to prevent tracking of construction dust/dirt offsite. Projects would be required to control dust during construction, including application of water two times daily, or by application of non-toxic soil stabilizers to all unpaved parking or staging areas or unpaved road surfaces, as well as application of non-toxic soil stabilizers to all inactive construction areas. In addition and in compliance with SCAQMD Rule 403, O<sub>3</sub> precursor emissions from construction equipment vehicles would be controlled by requirements to maintain equipment engines in good condition and in proper tune per manufacturer's specifications.

The Project would also be required to comply with SCAQMD Rule 1186, which requires certified street sweepers or roadway washing trucks if visible soil materials are carried onto adjacent streets. Compliance with these requirements would ensure that fugitive dust and NO<sub>x</sub> emissions would be minimized during the demolition, excavation, building construction, and paving phases of the Project. Further, all trucks that are to haul excavated or graded material onsite are required to comply with State Vehicle Code Section 23114 (Spilling Loads on Highways), regarding the prevention of such material spilling onto public streets and roads.

### 3.2 Air Quality

All off-road construction equipment would be required to comply with CARB in-use off-road diesel vehicle regulation and SCAQMD Rules 2449, 431.1 and 431.2, which prohibits idling over five minutes and use of low sulfur fuel.

The majority of the Project's VOC emissions would be generated by the application of architectural coatings, including paints, stains, and other finishes that off-gas VOCs during the drying/curing process. However, in compliance with the SCAQMD Rule 1113, developments would use "No VOC" or "Low VOC" finishes (VOC emission ratings <50g/L). Use of No VOC or Low VOC finishes would ensure that VOC emissions during the architectural coating phase of construction would be below SCAQMD thresholds for VOC.

~~Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.~~

For modeling purposes, it was assumed that the entire buildout of the Project would be completed in chronological construction phases in the absence of a detailed construction schedule. Construction emissions estimates were quantified based on the durations of each phase and the equipment types, and generated using CalEEMod. Detailed construction emissions and calculation assumptions as revised for the Partial Recirculated Draft EIR are provided in Appendix D. The CalEEMod estimates of construction emissions assume the Project and all development occurring under its implementation would comply with SCAQMD rules and regulations. As indicated in Table 3.2-7 below, overall construction emissions would not exceed SCAQMD thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> for the Project. ~~Implementing standard mitigation measures for construction equipment and practices would minimize construction-related air quality impacts even further (see Table 3.2-8), and is recommended for each future individual development within the Project.~~ Therefore, impacts relating to temporary regional emissions of construction-related air pollutants would be *less than significant*.

**Table 3.2-7. Maximum Short-term Construction Emissions (Unmitigated)**

	VOCs (ROG)	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Overall Construction (Maximum Daily Emission)</b>						
(lbs/day)	<del>5.96</del> <u>21.76</u>	<del>54.27</del> <u>54.58</u>	<del>71.22</del> <u>48.88</u>	<del>0.19</del> <u>0.17</u>	<del>20.63</del> <u>11.50</u>	<del>42.16</del> <u>6.67</u>
Thresholds (lbs/day)	75	100	550	150	150	55
<b>Significant?</b>	No	No	No	No	No	No

Note: Refer to Appendix D for CalEEMod output sheets. This table has been updated from that provided in the pre-recirculation Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Source: SCAQMD 2015.

**Mitigation Measures**

No mitigation required.<sup>2</sup>

Table 3.2-8. Maximum Short-term Construction Emissions (Mitigated)

	VOCs (ROG)	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Overall Construction (Maximum Daily Emission)</b>						
<b>(lbs/day)</b>	4.93	51.02	72.23	0.19	11.36	5.26
<b>Thresholds (lbs/day)</b>	75	100	550	150	150	55
<b>Significant?</b>	No	No	No	No	No	No

Notes: Refer to Appendix D for CalEEMod output sheets.

Reduction for construction emission mitigations are based on reduction measures included in the CalEEMod model, as recommended by the SCAQMD (Rule 403).

Source: SCAQMD 2015.

**Recommended Mitigation Measures**

**MM AQ-1a — Fugitive Dust Emission Reduction Strategies.** ~~Prior to issuance of any Grading Permit, the City Engineer and the Chief Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance offsite. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:~~

- ~~• All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the Project area to prevent excessive amounts of dust;~~
- ~~• Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;~~
- ~~• Any onsite stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;~~
- ~~• All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;~~

<sup>2</sup> Revisions to this discussion have been made to provide clarification in the identification and classification of Project impacts related to construction air pollutant emissions. As discussed in the description of Impact AQ-1, impacts of the Project from the generation of construction air pollutant emissions are below adopted thresholds of significance, and mitigation is not required to reduce Project impacts to a less than significant level. Mitigation measures previously recommended in the pre-recirculation Final EIR (April 2017), are no longer considered necessary

### 3.2 Air Quality

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- ~~• Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;~~
- ~~• Gravel bed trackout aprons (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) shall be installed to reduce mud/dirt trackout from unpaved truck exit routes;~~
- ~~• Onsite vehicle speed shall be limited to 15 miles per hour;~~
- ~~• All onsite roads shall be paved as soon as feasible, watered twice daily, or chemically stabilized;~~
- ~~• Visible dust beyond the property line which emanates from the Project shall be prevented to the maximum extent feasible;~~
- ~~• All material transported offsite shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site;~~
- ~~• Reroute construction trucks away from congested streets or sensitive receptor areas;~~
- ~~• Track-out devices shall be used at all construction site access points; and~~
- ~~• All delivery truck tires shall be watered down and/or scraped down prior to departing the job site.~~

~~**MM AQ-1b Construction Hauling.** All trucks that are to haul excavated or graded material onsite shall comply with State Vehicle Code Section 23114 (Spilling Loads on Highways), with special attention to Sections 23114(b)(F), (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads. Prior to the issuance of grading permits, the Applicant shall demonstrate to the City Engineer how the project operations subject to that specification during hauling activities shall comply with the provisions set forth in Sections 23114(b)(F), (e)(4).~~

~~**MM AQ-1c Volatile Organic Compound Emission Reduction Strategies.** The following measures shall be implemented by the contractor to reduce VOC emissions resulting from application of architectural coatings:~~

- ~~• Use high-pressure low volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent;~~
- ~~• Use zero VOC-emission paint, such as Benjamin Moore Natura Paint (Odorless, Zero VOC Paint).~~

~~**MM AQ-1d Equipment Maintenance.** Prior to issuance of any Grading Permit, the City Engineer and the Chief Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, O<sub>3</sub> precursor emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturer's specifications, to the satisfaction of the City. Maintenance records shall be provided to the City by the construction contractor on a monthly basis. The City Inspector shall be responsible for ensuring that contractors comply with this measure during construction.~~

~~**MM AQ-1e Construction Diesel Emission Reduction Strategies.** The following measures shall be implemented during construction to substantially reduce NO<sub>x</sub>-related emissions. They~~

~~shall be included in the Grading Plan, Building Plans, and contract specifications. Contract specification language shall be reviewed by the City prior to issuance of a grading permit.~~

- ~~• Off road diesel equipment operators shall be required to shut down their engines rather than idle for more than five minutes, and shall ensure that all off-road equipment is compliant with the CARB in-use off-road diesel vehicle regulation and SCAQMD Rule 2449.~~
- ~~• Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the Lead Agency determines that 2010 model year or newer diesel trucks cannot be obtained, the Lead Agency shall use trucks that meet EPA 2007 model year NO<sub>x</sub> emissions requirements.~~
- ~~• The contractor and Applicant, if the Applicant's equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions.~~
- ~~• Use low sulfur fuel for stationary construction equipment. This is required by SCAQMD Rules 431.1 and 431.2.~~
- ~~• Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.~~
- ~~• Configure construction parking to minimize traffic interference.~~
- ~~• Minimize obstruction of through traffic lanes and provide temporary traffic controls such as a flag person during all phases of construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum.~~
- ~~• Schedule construction operations affecting traffic for off peak hours to the best extent when possible.~~
- ~~• Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service).~~
- ~~• Construction related equipment, including heavy duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes.~~

### **Impact AQ-2 Description**

**AQ-2 The Project would result in potentially significant long-term operation-related air quality impacts generated by area, energy, and mobile emissions (*Less than Significant*).**

Long-term operation of the Project would generate air pollutant emissions. Operational emissions from the Project include those generated by vehicle trips (mobile emissions), the use of natural gas (energy emissions), use of consumer products and appliances, and the use of landscaping maintenance equipment (area source emissions). Daily operational emissions of the Project were estimated using CalEEMod, with detailed calculations and assumptions provided in the revised Appendix D. Consistent with SCAQMD Rule 445, new development installed under the proposed Project would be prohibited from including installation of wood-burning devices such as hearths or fireplaces, which would minimize VOC, NO<sub>x</sub>, CO, and SO<sub>2</sub> operational emissions. Therefore, the revised Project CalEEMod model run assumes all residential units would be constructed with natural gas fireplaces in compliance with this rule. Further, the FVCSP includes recommendations

### 3.2 Air Quality

for implementation of energy conservation features and “green building” techniques, and strongly encourages development to implement these measures to the extent feasible. As a conservative estimate of Project air pollutant emissions, the Project CalEEMod assumptions do not include consideration of exceedance of Title 24 standards or implementation of other “green building” techniques. However, these measures would further reduce air pollutant emissions.

The existing Project area is already emitting operational air pollutant emissions from its existing land uses (see Table 3.2-2). Therefore, this analysis evaluates existing development as part of the baseline and focuses operational impacts to proposed land use changes that alter buildout. This difference of the Project’s operational emissions is used to compare against the SCAQMD thresholds.

**Table 3.2-89. Project Long-term Operational Emissions (Unmitigated)**

	VOCs (ROG)	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Area (lbs/day)</b>	0.16 20.99	0.47 8.61	40.44 43.86	0.00 0.05	0.79 0.88	0.78 0.88
<b>Energy (lbs/day)</b>	0.27 0.14	2.36 1.20	1.17 0.28	0.04 0.01	0.19 0.10	0.19 0.10
<b>Mobile (lbs/day)</b>	-32.33 -32.14	-84.40 -102.23	-313.61 -458.56	1.25 -0.62	82.50 6.66	22.79 0.35
<b>Total (lbs/day)</b>	<b>-31.90</b> <b>-11.02</b>	<b>-81.57</b> <b>-92.42</b>	<b>-272.00</b> <b>-414.41</b>	<b>1.26</b> <b>-0.56</b>	<b>83.48</b> <b>7.64</b>	<b>23.76</b> <b>1.33</b>
<b>Thresholds (lbs/day)</b>	55	55	550	150	150	55
<b>Significant?</b>	No	No	No	No	No	No

Note: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the pre-recirculation Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Source: SCAQMD 2015.

Although buildout of the Project would result a net increase in new development on the site, the CalEEMod estimates for existing Project area operational mobile emissions are higher than the Project buildout operational mobile emissions due to the fact that CalEEMod assumes the use of “cleaner” vehicles in the buildout year of 2035 of the Project, compared to the comparatively “dirty” vehicles in the existing year of 2016. As Project operational emissions would not exceed SCAQMD thresholds, impacts would be less than significant.

**Mitigation Measures**

No mitigation required.<sup>3</sup>

**Table 3.2-10. Project Long-term Operational Emissions (Mitigated)**

	VOCs (ROG)	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Area (lbs/day)</b>	0.16	0.47	40.44	0.00	0.79	0.78
<b>Energy (lbs/day)</b>	0.04	0.27	-0.42	0.00	0.03	0.03
<b>Mobile (lbs/day)</b>	-37.78	-118.27	-466.34	0.17	4.10	1.17
<b>Total (lbs/day)</b>	<b>-37.58</b>	<b>-117.53</b>	<b>-426.32</b>	<b>0.17</b>	<b>4.92</b>	<b>1.98</b>
<b>Thresholds (lbs/day)</b>	55	55	550	150	150	55
<b>Significant?</b>	No	No	No	No	No	No

Note: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets.

Source: SCAQMD 2015.

**Recommended Mitigation Measure**

**MM AQ-2 — Pollutant Emission Best Management Practices.** ~~The Applicant shall include the following measures and indicate them on the Development Plan and building plans prior to acceptance of the final Development Plan and recordation of the Vesting Tract Map (VTM). City staff shall ensure these measures are indicated on the plans, and City building inspectors shall ensure compliance after completion of the Project.~~

- ~~• Water Conservation Strategy: The Applicant shall install fixtures with the EPA WaterSense Label. The Project shall install drip, micro, or fixed spray irrigation on all plants other than turf, also including the EPA WaterSense Label.~~
- ~~• Solid Waste Reduction: The Applicant shall institute recycling and composting services to achieve a 75 percent reduction in waste disposal, and use waste efficient landscaping.~~
- ~~• Fugitive Dust Reduction: The Applicant shall replace ground cover of at least 70 percent of area disturbed in accordance with CARB Rule 403.~~
- ~~• Area Mitigation: The Applicant shall ensure that only natural gas hearths are installed in any residential units, low VOC cleaning supplies are used, and zero VOC emission paint is used during repainting.~~
- ~~• Energy Mitigation: The Applicant shall ensure that all buildings exceed Title 24 with a 25 percent improvement, and that high efficiency lighting with a 25 percent reduction in lighting energy is installed in all buildings.~~

<sup>3</sup> Revisions to this discussion have been made to provide clarification in the identification and classification of Project impacts related to operational air pollutant emissions. As discussed in the description of Impact AQ-2, impacts of the Project from the generation of operational air pollutant emissions are below adopted thresholds of significance, and mitigation is not required to reduce Project impacts to a less than significant level. Mitigation measures previously recommended in the pre-recirculation Final EIR (April 2017), are no longer considered necessary due to their close similarities with existing adopted SCAQMD rules which would be required of all development projects occurring as a result of Project implementation.

**Impact AQ-3 Description**

**AQ-3 Implementation of the Project would not conflict with or obstruct implementation of the applicable air quality plan (*Less than Significant*).**

For the Project, the applicable air quality plan is the SCAQMD’s adopted ~~2016~~2012 AQMP. Generally, a project would conflict with or potentially obstruct implementation of an air quality plan if the project would contribute to population growth in excess of that forecasted in the AQMP. A project is deemed consistent with the air quality plan if it is consistent with the population and/or employment growth assumptions of the applicable air quality plan. In turn, the AQMP relies upon growth projections adopted by SCAG, which in turn, relies upon cities’ adopted general plan growth projections. Consequently, compliance with the City’s *General Plan* typically results in compliance with the AQMP.

As discussed in further detail in Section 3.9, *Population and Housing*, SCAG growth projections for the City’s population is 59,300 in 2040, with an increase of 5.8 percent in population from 2012 to ~~2035~~2040. This represents the most current growth projection in the 2016-2040 RTP/SCS and is the same growth forecast used in the 2012 to 2035 RTP/SCS that was analyzed in the pre-recirculation Final EIR released in April 2017. SCAG employment projection for the City is 34,900 in 2040, with an increase of 14.8 percent in jobs from 2012 to ~~2035~~2040. The Project would generate temporary employment opportunities during construction and long-term employment during operation of the retail, commercial, office, and industrial components of the Project. While these land uses would increase employment opportunities in the City, future employees would be expected to come partially from the existing population in the region, and partially from the population increase stimulated by the Project itself. The Project would create approximately 2,063 jobs, which would constitute an increase of approximately 7.15 percent in City jobs, which is consistent with SCAG projections. The Project also includes construction of approximately 491 residential units, resulting in an increase of population by approximately 1,444 residents. This would constitute a marginal increase of approximately 3.43 percent in City population by the estimated Project buildout date of 2035, which is consistent with SCAG projections. Table 3.2-911 summarizes the Project’s consistency with SCAG projections.

**Table 3.2-911. Project Consistency with SCAG Growth and Population Projections**

Growth	SCAG Projections (%)	Project Projections (%)	Consistent?
Population	5.8	3.43	Yes
Employment	14.8	7.15	Yes

Therefore, the Project would not exceed growth forecasts used in the adopted AQMP, and this impact would be *less than significant*.

**Mitigation Measures**

No mitigation required.

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### **Impact AQ-4 Description**

**AQ-4 Emissions from operation of the Project could result in a cumulatively considerable net increase to certain criteria pollutants for which the Project region is in nonattainment (*Less than Significant*).**

Because the Basin is currently in nonattainment for O<sub>3</sub> (for which VOC and NO<sub>x</sub> are precursors) and PM<sub>2.5</sub> and PM<sub>10</sub> under national and state standards, development anticipated to occur under the Project could cumulatively exceed an air quality standard or contribute to an existing or projected air quality exceedance. With regard to determining the significance of the Project's contribution, the SCAQMD neither recommends quantified analyses of cumulative construction or operational emissions, nor provides separate methodologies or thresholds of significance to be used to assess cumulative construction or operational impacts. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed using the same significance criteria as those for project-specific impacts; that is, individual development projects that generate construction-related or operational emissions that exceed the SCAQMD-recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

#### *Construction*

As described in Impact AQ-1, emissions resulting from construction activities anticipated to occur under the Project would result in short-term air emissions, but they would not exceed SCAQMD thresholds for those emissions. Construction-related emissions would include NO<sub>x</sub> and particulate matter from diesel exhaust and fugitive dust. Because the Basin is in nonattainment for O<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>, the Project could result in a cumulative contribution to existing nonattainment status for these pollutants. As concluded in Impact AQ-1, existing policies and ~~proposed Mitigation Measures AQ-1a through AQ-1e~~ would further reduce ensure that the impacts of construction-related emissions ~~from an already~~ are less than significant level. Therefore, construction activities would not result in a cumulatively considerable net increase of the criteria pollutants for which the air basin is nonattainment, and the impact would be *less than significant*.

#### *Operation*

As described in Impact AQ-2, land use changes anticipated to occur under the Project would generate long-term operational emissions. Stationary area source emissions would be generated by space and water heating devices, and the operation of landscape maintenance equipment. Mobile emissions would be generated by the motor vehicles traveling to and from the Project. However, operational emissions generated by both stationary and mobile sources would not result in long-term air quality impacts, and the impact would be *less than significant*.

When evaluated against SCAQMD's project-level thresholds, both the construction and operational emissions of land use changes anticipated to occur under the Project would not exceed SCAQMD's project-specific thresholds. Therefore, this impact would be *less than significant*.

### **Mitigation Measures**

No mitigation required.

### **Impact AQ-5 Description**

**AQ-5            The Project has the potential to expose sensitive land uses (e.g. residential units) to substantial pollution concentrations (*Less than Significant with Mitigation*).**

Although no specific Project details (e.g., site plans) are available, 491 residential units are proposed, some of which could be located within 500 feet of the I-405 freeway, which bisects the Project area diagonally. The CARB guidebook, *Air Quality and Land Use Handbook: A Community Health Perspective*, recommends avoiding siting sensitive uses within 500 feet of a high-volume freeway. However, this is not always possible, particularly where there is an elevated health risk over large geographical areas (e.g., urbanized areas of Southern California). As such, the CARB notes that a site-specific analysis would be required to determine the actual risk near a particular land use and should consider factors such as prevailing wind direction, local topography and climate. The analysis would also serve to provide a connection between identified impacts and the effectiveness of available mitigation measures.

The Project also has the potential to locate retail and/or light industrial facilities with substantial toxic air emissions near sensitive land uses within the Project area or in the Project vicinity. The CARB guidebook recommends avoiding siting sensitive land uses within 1,000 feet of a distribution center, within 1,000 feet of a rail yard, immediately downwind of a refinery, within 1,000 feet of a chrome plater, within 300 feet of any dry-cleaning operation, and within 300 feet of a large gas station. The Fountain Valley Crossings Specific Plan (FVCSP) allows some of these uses within the Project area, so there is the potential that one or more of these land uses would be developed near sensitive receptors in the Project area or vicinity.

Therefore, the siting of future residential uses near the I-405 could result in exposure of sensitive receptors to elevated levels of TACs from the freeway. In addition, the siting of any of the facilities listed above could also result in the exposure of sensitive receptors to substantial levels of TACs. Consistent with CARB recommendations, these potential effects could be addressed through Health Risk Assessments (HRAs) prior to approval of development permits for land uses that include or could potentially affect sensitive receptors. With the implementation of mitigation below, this impact to sensitive receptors would be *less than significant with mitigation*.

### **Mitigation Measures**

**MM AQ-5a    *Health Risk Assessment (HRA)*.** *Development of a proposed sensitive land use within 500 feet of I-405 or the development of a distribution center, rail yard, refinery, chrome plater, dry cleaning operation, or large gas station near a sensitive land use shall prepare a site-specific HRA prior to developing such land uses as a way to more accurately evaluate the risk. The HRA for air quality and “hot spots” of air pollutions shall be prepared consistent with CalEPA’s*

*Office of Environmental Health Hazard Assessment's A Guide to Health Risk Assessment and The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (HRAs) to aid California projects' compliance with the 1987 "Hot Spots" Act. The HRA shall identify the hazard or hazardous material, assess the amount, duration, and pattern of exposure to the hazard or hazardous material, assess the amount it would take to cause negative health effects, and characterize the risk to general population and sensitive receptors from the hazard or hazardous material. The HRA shall be reviewed and approved by the City Planning and Building Department prior to approval of development permits for land uses that include or potentially affect sensitive populations.*

**MM AQ-5b Interior Air Quality Protection.** *Development of a proposed sensitive land use within 500 feet of I-405 and/or within 100 feet of an intersection operating or projected to operate at Level of Service (LOS) E or F shall include heating, ventilation, and air conditioning (HVAC) infrastructure within the building to circulate and purify outdoor air sources sufficiently to reduce Toxic Air Contaminants (TACs), such as diesel particulate matter and vehicle emissions. HVAC control systems shall include particulate filters that have a minimum efficiency reporting value (MERV) of 15 as indicated by the American Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 52.2. The proposed HVAC system shall be reviewed and approved by the City Planning and Building Department prior to approval of a development permit. Monitoring and maintenance of HVAC systems and particulate filters shall be conducted by the Applicant on a semiannual basis to ensure efficiency of the system for development permits involving land uses that include or potentially affect sensitive populations.*

**MM AQ-5c Placement of Air System Intake.** *When considering placement and direction of air intakes, the direction of prevailing winds shall be considered and the most logical decision shall be made. Design of the proposed development shall face air systems intakes appropriately, so as to reduce highly concentrated air pollution intake, considering placement on the opposite side of the building from the pollutant source. Development and HVAC system design shall be reviewed and approved by the City Planning and Building Department prior to issuance of a building permit. Monitoring and maintenance of HVAC systems and air intakes shall be conducted by the Applicant on a semiannual basis to ensure efficiency of the system for development permits involving land uses that include or potentially affect sensitive populations.*

**MM AQ-5d Vegetation Barriers.** *The Applicant of development permits involving land uses that include or potentially affect sensitive populations shall consider the installation of vegetation barriers that disrupt pollutant dispersal, absorb carbon based particulates, or reduce air pollutant concentrations during design of the proposed development. Vegetation barriers shall be chosen and installed where most appropriate to provide additional reduction of onsite air pollutant concentrations, while providing an aesthetically pleasing natural barrier. The vegetation types chosen should shall be appropriate for the location, including water requirements, non-invasive species, and aesthetic quality. Development designs and vegetative screening shall be reviewed and approved by the City Planning and Building Department prior to approval of a development permit. Plans for the maintenance of landscaping and vegetation barriers shall be made by the*

### **3.2 Air Quality**

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Applicant to ensure efficiency of vegetation barriers and maintain the visual quality of onsite landscape design.

**MM AQ-5e Reduced Number of Openable Windows Facing I-405.** During the preliminary design process, the Applicant of development permits involving land uses that include sensitive populations shall reduce the number of openable windows facing the I-405. The reduction in number of openable windows facing the pollutant source will reduce potential exposure of harmful vehicle pollutants, as well as reduce potential contamination of interior air quality. Careful consideration of the location of openable and un-openable windows, prevailing wind direction and daylighting shall be made during design of the development so as not to substantially diminish comfortability and livability of the residential development or other sensitive receptor. Development and building design shall be reviewed and approved by the City Planning and Building Department prior to approval of a development permit.

**MM AQ-5f Development Design, Siting, and Setbacks.** Where appropriate, the Applicant of land uses that include sensitive populations shall develop the site such that open spaces (i.e., walkways, alley ways, streetways, and other non-sensitive open space land uses) are placed closest to the I-405, increasing the distance of sensitive receptors from the pollutant source. The setback of sensitive receptors remains the most certain method for reducing health risk from traffic pollution exposure. Development and site design shall be reviewed by the City Planning and Building Department prior to approval of a development permit.

#### **Residual Impact**

MM AQ-5a through MM AQ-5f would reduce adverse effects for sensitive receptors within 500 feet of the I-405 freeway and/or for sensitive receptors near the potential development of a distribution center, rail yard, refinery, chrome plater, dry cleaning operation, or gas station. Specifically, these requirements would ensure the potential for exposure of hazardous air emissions to sensitive receptors would be reviewed and project designs revised if necessary to address air quality threshold issues. Through site specific planning review, the City may require an applicant prepared, City approved HRA to determine the potential for hazardous pollutant exposure and guide site development, development design, and setbacks of sensitive land uses. Therefore, after mitigation, residual impacts related to the exposure of sensitive land uses to substantial pollution concentrations would be less than significant.

#### **Impact AQ-6 Description**

**AQ-6 Implementation of the Project could create objectionable odors affecting a substantial number of people (Less than Significant).**

#### **Construction**

Potential sources of odor associated with the Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities. Construction that would occur as a result of the Project would be both temporary and

geographically intermittent. Standard construction requirements would be imposed upon the individual developers to minimize odors from construction. Therefore, impacts associated with construction-generated odors would be *less than significant*.

### *Operation*

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses (e.g. farms and dairies), wastewater treatment plants, food processing plants, chemical plants, refineries, and landfills. The Project would include a range of typical urban uses, such as retail, light industrial, residential, and office. Potential sources of odor could occur from the temporary storage of typical household solid waste (i.e., refuse) associated with residential, long-term operational, uses. However, these odors would be similar to existing housing uses throughout the City, would typically not be considered offensive, and would be confined to the immediate vicinity of the new building. Additionally, it is expected that any Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. As such, land uses anticipated to occur under the Project would not facilitate uses that are major sources of objectionable odors.

The Project is located directly north and adjacent to the Orange County Sanitation District (OCSD) facility, a large wastewater treatment plant which may generate and expose adjacent land uses to potentially objectionable odors typical of wastewater treatment operations. However, the proposed Project would designate the southern portion of the Project area closest to the OCSD facility primarily as Mixed Industrial District and a small portion designated for Workplace Gateway District, which would be generally compatible with development and use of the OCSD facility. As discussed in Section 2.0, Project Description, the Mixed Industrial District would consist of industrial-oriented uses and redevelopment of existing industrial development, while the Workplace Gateway District would provide for higher density professional office development. While the Workplace Gateway District would consist of development which may be more sensitive to odors than industrial uses, only a small portion of the Workplace Gateway District would be located along Ellis Avenue, and would be located a considerable distance (approximately 1,250 feet) from the areas of the OCSD facility expected to generate the greatest concentration of nuisance odors. Due to the compatible nature of proposed and existing adjacent development, the limited sensitive nature of potential future development proposed in this area, and the distance from the most likely odor generating facilities, the potential for disturbance to and incompatibility of future development with regards to nuisance odors is considered low. Therefore, impacts associated with operation-generated odors from both the Project and adjacent uses would be less than significant.

### **Mitigation Measures**

No mitigation required.

#### **3.2.4.1 Cumulative Impacts**

Cumulative impacts related to air quality are related to air emissions occurring in the City, inclusive of the Project, as well as within the overall Basin.

### 3.2 Air Quality

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Cumulative impacts to air quality could result from growth that would be inconsistent with the ~~2016~~2012 AQMP. This could interfere with attainment of federal or state ambient air quality standards within the ~~2016~~2012 AQMP. Any growth within the City as well as the Los Angeles metropolitan area would contribute to existing exceedances of ambient air quality standards when taken as a whole with existing development. Cumulative impacts to air quality are evaluated under two sets of thresholds for CEQA and SCAQMD. According to CEQA Guidelines Sections 15064(h)(3):

*A project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including an air quality attainment or management plan) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.*

Cumulative impacts to air quality could result from growth that would be inconsistent with the 2012 AQMP. This could interfere with attainment of federal or state ambient air quality standards within the 2012 AQMP. ~~Since the~~ If a project is consistent with 20162012 AQMP growth projections, a project, with respect to potential conflicts with the ~~2016~~2012 AQMP, would not represent a cumulatively considerable contribution. This Project is consistent with the 20162012 AQMP as described in Impact AQ-3; therefore, the cumulative effect of this Project is considered *less than significant*.

As discussed above, the Basin is in nonattainment for O<sub>3</sub>, PM<sub>2.5</sub>, and PM<sub>10</sub>. Per the SCAQMD's ~~2016~~2012 AQMP, the latest emissions inventory and air quality modeling analysis indicate that significant reductions above and beyond those already achieved are still needed for meeting these standards. Therefore, any substantial increases in the amount of O<sub>3</sub> precursors and particulate matter in the area would be considered to be cumulatively considerable to potentially significant cumulative impacts, including those attributed to construction emissions. With regard to the contribution of the Project, the SCAQMD recommends methods to determine the cumulative significance of new land use projects. These methods are based on performance standards and emission reduction targets necessary to attain federal and state air quality standards projected in the ~~2016~~2012 AQMP.

SCAQMD has additional requirements for assessing cumulative impacts of a project on air quality. If the project exceeds SCAQMD thresholds, then the lead agency needs to consider the additive effects of cumulative projects if a proposed project is part of an ongoing regulatory program or is contemplated in a Program EIR, and the cumulative projects are located within approximately one mile of the proposed project site. If there are cumulative projects within a one-mile radius of the proposed project site that are part of an ongoing regulatory program or are contemplated in a Program EIR, then additive effects of the cumulative projects should be considered.

Construction of the Project would potentially overlap with other future projects in the immediate vicinity, including the Southpark Specific Plan – Sakioka Site and the OCSD Biosolids Master Plan Project (SCH# 2017071026). Construction-period emissions for the Project and each future development project (that has not yet been approved or built) would be localized. It should be

noted that the City has limited control over the timing or sequencing of many of the future development projects that may occur within the Project vicinity. However, the Sakioka Site and OCSD is adjacent to the Project site and development of these sites could result in temporary cumulative increases in construction emission levels for sensitive receptors. As agreed upon by the City and Sakioka Farms in a 1989 Development Agreement, the City is required to consider development of the Sakioka Site to be fully developed and built out at the maximum density permitted by the Southpark Development Plan. Currently, however, the site is not yet built out, so this analysis considers the possibility that the construction schedule of the Sakioka Site may overlap with the proposed Project's. The OCSD Biosolids Master Plan Project would occur over a similar 20-year planning period as the FVCSP. Analysis in Impact AQ-1 indicates that emissions due to Project-related construction is well below the significance thresholds; in addition, any construction within the Project vicinity would be required to adhere to SCAQMD Rules regarding fugitive dust, diesel emissions, and architectural coatings. Analysis in Impact AQ-1 indicates that emissions due to construction would not exceed the significance thresholds. The contribution of future construction-related emissions under the Project would therefore not be considered cumulatively considerable. This cumulative impact is considered to be *less than significant*.

As discussed under Impact AQ-2, long-term operational emissions included in the Project would not exceed SCAQMD significance thresholds. Further, like the Project, other cumulative projects such as potential development of the Sakioka Site and OCSD Biosolids Master Plan Project would be subject to SCAQMD's standards, rules, and thresholds to cumulatively control emissions. The analysis of operational air quality emissions provided in Impact AQ-2 serves as a cumulative level of analysis for land use changes anticipated to occur due to the Project. As discussed above, based on the air quality modeling results, the Project would not exceed SCAQMD thresholds pollutants for which the Basin is in nonattainment. Therefore, this cumulative impact would be *less than significant*.

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