3.2 AIR QUALITY

This section evaluates the potential air quality impacts that would be generated by construction and operation of the Potrero Logistics Center Warehouse Project (Project). The ambient air quality of the local and regional area is described, along with relevant federal, State, and local air pollutant regulations. Analysis is based on an Air Quality Assessment for the Potrero Logistics Center prepared in August 2021 by Kimley Horn and provided in ***Appendix B***. A Health Risk Assessment to evaluate the risk from Toxic Air Contaminants is provided in ***Appendix C***.

3.2.1 ENVIRONMENTAL SETTING

CLIMATE AND METEOROLOGY

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The Project is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, as well as all of Orange County. The SCAB is on a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the southwest and high mountains forming the remainder of the perimeter.[1] Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

The SCAB is part of a semi-permanent high-pressure zone in the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. This usually mild weather pattern is occasionally interrupted by periods of extreme heat, winter storms, and Santa Ana winds. The annual average temperature throughout the 6,645-square-mile SCAB ranges from low 60 to high 80 degrees Fahrenheit with little variance. With more oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. Contrasting the steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rainfall occurs between the months of November and April. Summer rainfall is reduced to widely scattered thundershowers near the coast, with slightly heavier activity in the east and over the mountains.

Although the SCAB has a semiarid climate, the air closer to the Earth's surface is typically moist because of the presence of a shallow marine layer. Except for occasional periods when dry, continental air is brought into the SCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog are frequent and low clouds known as high fog are characteristic climatic features, especially along the coast. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SCAB.

Wind patterns across the SCAB are characterized by westerly or southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is typically higher during the dry summer months than during the rainy winter. Between periods of wind, air stagnation may occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During winter and fall, surface high-pressure systems over the SCAB, combined with other

[1] South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

meteorological conditions, result in very strong, downslope Santa Ana winds. These winds normally continue for a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

In addition to the characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which air pollutants are mixed. These inversions are the marine inversion and the radiation inversion. The height of the base of the inversion at any given time is called the "mixing height." The combination of winds and inversions is a critical determinant leading to highly degraded air quality for the SCAB in the summer and generally good air quality in the winter.

Air Pollutants of Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by state and federal laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants.

Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O_3) is formed by a chemical reaction between ROG and NO_X in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in ***Table 3.2-1: Air Contaminants and Associated Public Health Concerns***.

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (i.e., chronic, carcinogenic or cancer-causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

CARB identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate,

decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Table 3.2-1: Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[1] and nitrogen oxides (NO_X) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to O_3. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

[1] Volatile Organic Compounds (VOC)s or Reactive Organic Gases (ROG) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Source: California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, http://www.capcoa.org/health-effects/, Accessed November 19, 2019.

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. These stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the Project are documented by measurements made by the South Coast Air Quality Management District (SCAQMD), the air pollution regulatory agency in the SCAB that maintains air quality monitoring stations which process ambient air quality measurements.

Pollutants of concern in the SCAB include O_3, PM_{10}, and $PM_{2.5}$. The closest air monitoring station to the Project that monitors ambient concentrations of these pollutants is the Banning Airport Monitoring Station (located approximately nine miles to the east). Local air quality date from the 2015 to 2017 are provided in ***Table 3.2-2: Ambient Air Quality Data***, which lists the monitored maximum concentrations and number of exceedances of state or federal air quality standards for each year.

Table 3.2-2: Ambient Air Quality Data

Criteria Pollutant	2016	2017	2018
Ozone (O_3) [1]			
1-hour Maximum Concentration (ppm)	0.128	0.128	0.119
8-hour Maximum Concentration (ppm)	0.106	0.105	0.106
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	26	50	33
NAAQS 8-hour (>0.070 ppm)	52	82	69
Carbon Monoxide (CO) [1]			
1-hour Maximum Concentration (ppm)	3.05	2.43	1.28
Number of Days Standard Exceeded			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0
Nitrogen Dioxide (NO_2) [1]			
1-hour Maximum Concentration (ppm)	0.0469	0.0563	0.0506
Number of Days Standard Exceeded			
NAAQS 1-hour (>100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM_{10}) [1]			
National 24-hour Maximum Concentration	65.0	97.9	39.3
State 24-hour Maximum Concentration	65.9	97.9	36.9
State Annual Average Concentration (CAAQS=20 µg/m^3)	—	—	—
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 µg/m^3)	0	0	0
CAAQS 24-hour (>50 µg/m^3)	3	1	0
Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$) [1]			
National 24-hour Maximum Concentration	—	—	—
State 24-hour Maximum Concentration	110.5	34.9	32.0
Number of Days Standard Exceeded			
NAAQS 24-hour (>35 µg/m^3)	—	—	—

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m^3 = micrograms per cubic meter; – = not measured

[1] Measurements taken at the Banning Airport Monitoring Station at 200 S. Hathaway Street, Banning, California 92220 (CARB# 36164)

Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam) except for CO, which were retrieved from the CARB Air Quality and Meteorological Information System (https://www.arb.ca.gov/aqmis2/aqdselect.php).

Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive receptors that are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. North of the State Route 60 (SR-60) is a residential community currently under construction. Although the residential community to the north is not occupied, this would be the location of the nearest sensitive receptors in the near future. The nearest residential property is located on the north side of SR-60, approximately 550 feet north of the Warehouse Site and northerly Project Site boundary.

3.2.2 REGULATORY SETTING

FEDERAL

Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the United States Environmental Protection Agency (U.S. EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and lead. Proposed projects in or near nonattainment areas could be subject to more stringent air permitting requirements. The FCAA requires each state to prepare a State Implementation Plan to demonstrate how it will attain the NAAQS within the federally imposed deadlines.

The U.S. EPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the FCAA. If a state fails to correct these planning deficiencies within two years of Federal notification, the U.S. EPA is required to develop a Federal implementation plan for the identified nonattainment area or areas. The provisions of 40 Code of Federal Regulations (CFR) Parts 51 and 93 apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan. The U.S. EPA has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in **Table 3.2-3**: ***State and Federal Ambient Air Quality Standards***.

STATE

California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in ***Table 3.2-3***, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the State Implementation Plan for meeting federal clean air standards for the State of California. Like the U.S. EPA, CARB also designates areas within

California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in ***Table 3.2-3***.

Table 3.2-3: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards[1]	Federal Standards[2]
Ozone (O_3) [2, 5, 7]	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm
	1 Hour	0.09 ppm (180 µg/m^3)	NA
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m^3)	0.10 ppm[11]
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)
Sulfur Dioxide (SO_2) [8]	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)
	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)
	Annual Arithmetic Mean	NA	0.03 ppm (80 µg/m^3)
Particulate Matter (PM_{10}) [1, 3, 6]	24-Hour	50 µg/m^3	150 µg/m^3
	Annual Arithmetic Mean	20 µg/m^3	NA
Fine Particulate Matter ($PM_{2.5}$) [3, 4, 6, 9]	24-Hour	NA	35 µg/m^3
	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3
Sulfates (SO_{4-2})	24 Hour	25 µg/m^3	NA
Lead (Pb) [10, 11]	30-Day Average	1.5 µg/m^3	NA
	Calendar Quarter	NA	1.5 µg/m^3
	Rolling 3-Month Average	NA	0.15 µg/m^3
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (0.15 µg/m^3)	NA
Vinyl Chloride (C_2H_3Cl) [10]	24 Hour	0.01 ppm (26 µg/m^3)	NA

Notes:

ppm = parts per million; µg/m^3 = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; – = no information available.

1 California standards for O_3, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. Measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe carbon monoxide standard is 6.0 ppm, a level one-half the national standard and two-thirds the State standard.

2 National standards shown are the "primary standards" designed to protect public health. National standards other than for O_3, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour O_3 standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour O_3 standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m$_3$. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m^3.

3 Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
NAAQS are set by the U.S. EPA at levels determined to be protective of public health with an adequate margin of safety.

4 On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour O_3 concentration per year, averaged over three years, is equal to or less than 0.070 ppm. U.S. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the O_3 level in the area.

5 The national 1-hour O_3 standard was revoked by the U.S. EPA on June 15, 2005.

6 In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.

7 The 8-hour California O_3 standard was approved by the CARB on April 28, 2005 and became effective on May 17, 2006.

8 On June 2, 2010, the EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO_2 NAAQS.

Pollutant	Averaging Time	State Standards[1]	Federal Standards[2]
[9] In December 2012, U.S. EPA strengthened the annual $PM_{2.5}$ NAAQS from 15.0 to 12.0 µg/m^3. In December 2014, the U.S. EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.			
[10] CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.			
[11] National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.			
Source: South Coast Air Quality Management District, *Air Quality Management Plan*, 2016; California Air Resources Board, *Ambient Air Quality Standards*, May 6, 2016.			

REGIONAL

South Coast Air Quality Management District

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties. The agency's primary responsibility is ensuring that state and federal ambient air quality standards are attained and maintained in the SCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, and many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The SCAQMD is also the lead agency in charge of developing the AQMP, with input from the Southern California Association of Governments (SCAG) and CARB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. SCAG has the primary responsibility for providing future growth projections and the development and implementation of transportation control measures. CARB, in coordination with federal agencies, provides the control element for mobile sources.

The 2016 AQMP was adopted by the SCAQMD Governing Board on March 3, 2017. The purpose of the AQMP is to set forth a comprehensive and integrated program that would lead the SCAB into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update to the SCAQMD's commitments towards meeting the federal 8-hour O_3 standards. The AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and updated emission inventory methodologies for various source categories.

The SCAQMD has published the *CEQA Air Quality Handbook* (approved by the SCAQMD Governing Board in 1993 and augmented with guidance for Local Significance Thresholds [LST] in 2008). The SCAQMD guidance helps local government agencies and consultants to develop environmental documents required by California Environmental Quality Act (CEQA) and provides identification of suggested thresholds of significance for criteria pollutants for both construction and operation (see discussion of thresholds below). With the help of the *CEQA Air Quality Handbook* and associated guidance, local land use planners and consultants are able to analyze and document how proposed and existing projects affect air quality in order to meet the requirements of the CEQA review process. The SCAQMD periodically provides supplemental guidance and updates to the handbook on their website.

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. Under federal law, SCAG is designated as a Metropolitan Planning Organization and under State law as a Regional Transportation Planning Agency and a Council of Governments.

The state and federal attainment status designations for the SCAB are summarized in **Table 3.2-4**: ***South Coast Air Basin Attainment Status***. The SCAB is currently designated as a nonattainment area with respect to the State O_3, PM_{10}, and $PM_{2.5}$ standards, as well as the national 8-hour O_3 and $PM_{2.5}$ standards. The SCAB is designated as attainment or unclassified for the remaining state and federal standards.

Table 3.2-4: South Coast Air Basin Attainment Status

Pollutant	State	Federal
Ozone (O_3) (1 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Ozone (O_3) (8 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Particulate Matter ($PM_{2.5}$) (24 Hour Standard)	–	Non-Attainment (Serious)
Particulate Matter ($PM_{2.5}$) (Annual Standard)	Non-Attainment	Non-Attainment (Moderate)
Particulate Matter (PM_{10}) (24 Hour Standard)	Non-Attainment	Attainment (Maintenance)
Particulate Matter (PM_{10}) (Annual Standard)	Non-Attainment	–
Carbon Monoxide (CO) (1 Hour Standard)	Attainment	Attainment (Maintenance)
Carbon Monoxide (CO) (8 Hour Standard)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO_2) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO_2) (Annual Standard)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO_2) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO_2) (24 Hour Standard)	Attainment	–
Lead (Pb) (30 Day Standard)	–	Unclassifiable/Attainment
Lead (Pb) (3 Month Standard)	Attainment	–
Sulfates (SO_{4-2}) (24 Hour Standard)	Attainment	–
Hydrogen Sulfide (H_2S) (1 Hour Standard)	Unclassified	–

Source: South Coast Air Quality Management District, *Air Quality Management Plan*, 2016; United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants (Green Book)*, 2018.

The following is a list of SCAQMD rules that are required of construction activities associated with the Project:

- **Rule 402 (Nuisance)** – This rule prohibits the 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. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This rule is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression techniques are summarized below.
  a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
  b) All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
  c) All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
  d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
  e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.
- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.
- **Rule 2305 (Warehouse Indirect Source Rule)** - Rule 2305 was adopted by the SCAQMD Governing Board on May 7, 2021 to reduce NO_X and particulate matter emissions associated with warehouses and mobile sources attracted to warehouses. This rule applies to all existing and proposed warehouses over 100,000 square feet located in the SCAQMD. Rule 2305 requires warehouse operators to track annual vehicle miles traveled associated with truck trips to and from the warehouse. These trip miles are used to calculate the warehouses WAIRE (Warehouse Actions and Investments to Reduce Emissions) Points Compliance Obligation. WAIRE Points are earned based on emission reduction measures and warehouse operators are required to submit an annual WAIRE Report which includes truck trip data and emission reduction measures. Reduction strategies listed in the WAIRE menu include acquire zero emission (ZE) or near zero emission (NZE) trucks; require ZE/NZE truck visits; require ZE yard trucks; install on-site ZE charging/fueling infrastructure; install onsite energy systems; and install filtration systems in residences, schools, and other buildings in the adjacent community. Warehouse operators that do not earn a sufficient number of WAIRE points to satisfy the WAIRE Points Compliance

Obligation would be required to pay a mitigation fee. Funds from the mitigation fee will be used to incentivize the purchase of cleaner trucks and charging/fueling infrastructure in communities nearby.

LOCAL

City of Beaumont General Plan

Conservation and Open Space Element

The Conservation and Open Space Element establishes goals and policies to protect, maintain, and enhance natural resources in the City. This Element complies with the State requirements for a Conservation Element and an Open Space Element. The Project's consistency with these goals and policies is discussed in ***Table 3.10-3, Beaumont General Plan Consistency Analysis*** of this EIR. The following goals and policies are applicable to air quality:

Goal 8.4: A City that improves awareness and mitigation of negative air quality impacts.

Policy 8.4.2: Participate in air quality planning efforts with local, regional, and State agencies that improve local air quality to protect human health, minimize the disproportionate impacts on sensitive population groups, and ensure that City concerns are resolved early in the process.

Policy 8.4.3 Avoid the siting of new projects and land uses that would produce localized air pollution (e.g., Interstate 10, SR-60, high traffic roads, certain industrial facilities) in a way that would adversely impact existing air quality-sensitive receptors including schools, childcare centers, senior housing, and subsidized affordable housing. The recommended minimum distance separating these uses should be 500 feet.

Beaumont Municipal Code

The Beaumont Municipal Code (MC) establishes the following air quality provisions relative to the Project.

Section 17.04.050 Air Quality

The CARB and the SCAQMD are the agencies responsible for the implementation of the Clean Air Act at the local level. In order to protect the health and welfare of those persons living, working, or visiting the City of Beaumont, the following performance standards with respect to air quality are outlined in this Section.

A. *Smoke and Particulates.* No smoke of any type shall be emitted from a source in excess of SCAQMD standards. No elements of dust, fly ash, vapors, fumes, gases or other forms of air pollution shall be permitted in excess of the standards set by the SCAQMD or that can cause damage to human health, animals, vegetation, or that can cause excessive soiling at any location.

B. *Permits*. Before a building or occupancy permit is issued by the City, the applicant shall be required to show proof that he has secured the necessary permits from the SCAQMD or that the project is exempt from SCAQMD regulations as of the date of filing of the City application.

C. *Enforcement and Standards.* In enforcing these regulations, the City shall use the same point of measurement as utilized by the SCAQMD.

Section 17.04.060 Odors

In order to protect the wellbeing of the community and to eliminate the blighting influences of odors, the following performance standards with respect to the generation of odors are outlined in this Section.

A. Odor Generating Activities. Any process that creates or emits any odors, gases, or other odorous matter shall comply with the standards set by the SCAQMD.

B. Quantified Standard. No odors, gases, and odorous matter shall be emitted in quantities to be detectable when diluted in a ratio of one volume diluted air to four volumes clean air at the point of greatest concentration.

3.2.3 STANDARDS OF SIGNIFICANCE

AIR QUALITY THRESHOLDS

State CEQA Guidelines Appendix G contains the Environmental Checklist Form, which includes questions concerning air quality. The questions presented in the Environmental Checklist Form have been utilized as significance criteria in this section:

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

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

c) Expose sensitive receptors to substantial pollutant concentrations.

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

SCAQMD THRESHOLDS

The significance criteria established by SCAQMD may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if the project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during construction and operational activities of land use development projects, as shown in **Table 3.2-5: *South Coast Air Quality Management District Daily Emissions Thresholds***.

Table 3.2-5: South Coast Air Quality Management District Daily Emissions Thresholds

Criteria Air Pollutants and Precursors	Construction-Related (lbs/day)	Operational-Related (lbs/day)
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO_X)	100	55
Sulfur Oxides (SO_X)	150	150
Coarse Particulates (PM_{10})	150	150
Fine Particulates ($PM_{2.5}$)	55	55
Source: South Coast Air Quality Management District, *South Coast AQMD Air Quality Significance Thresholds,* April 2019.		

Localized Carbon Monoxide

In addition to the daily thresholds listed above, development associated with the Project would also be subject to the ambient air quality standards. These are addressed through an analysis of localized CO impacts. The significance of localized impacts depends on whether ambient CO levels near the Project are above state and federal CO standards (the more stringent California standards are 20 ppm for 1-hour and 9 ppm for 8-hour). The SCAB has been designated as attainment under the 1-hour and 8-hour standards.

Localized Significance Thresholds

In addition to the CO hotspot analysis, the SCAQMD developed LSTs for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at new development sites (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions that can be generated at a project without expecting to cause or substantially contribute to an exceedance of the most stringent state or federal ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the Project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that disturb five acres or less on a single day. The City of Beaumont is located within SCAQMD SRA 29. ***Table 3.2-6: Local Significance Thresholds for Construction/Operations (lbs/day)***, shows the LSTs for a 1-acre, 2-acre, and 5-acre project in SRA 29. Because the nearest sensitive receptors would be located 550 feet from the Warehouse Site the threshold with the furthest distance, 100 meters (328 feet), was used to analyze the localized impacts of the Project. This presents a highly conservative analysis, given that these sensitive receptors: (1) have yet to be constructed; and (2) are located on the northerly side of SR-60, and (3) the freeway is the source of substantially greater emissions from vehicles than the Project would be during either construction or operation.

Table 3.2-6: Local Significance Thresholds for Construction/Operations (lbs/day)

Project Size	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
1 Acre	189/189	2,623/2,623	55/14	14/4
2 Acres	234/234	3,458/3,458	73/18	17/5
5 Acres	333/333	5,534/5,534	104/25	25/6

Source: South Coast Air Quality Management District, *Localized Significance Threshold Methodology,* July 2008.

METHODOLOGY

This air quality impact analysis considers construction and operational impacts associated with the Project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). CalEEMod is a Statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Air quality impacts were assessed according to methodologies recommended by CARB and the SCAQMD.

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction would generate emissions of criteria air pollutants and precursors. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road

emissions factors in CalEEMod. Construction is assumed to occur from mid-2022 to late 2022. This provides a conservative analysis, as a later construction start date would not result in greater emissions, but could possibly result in fewer emissions, given that cleaner equipment may be more available in the future and because cleaner and more efficient fuels may be available. In addition, the Project includes a Project Design Feature (PDF) incorporated into the Project to reduce emissions. PDF SC-1 is as follows:

> Prior to the issuance of grading permits, the City Engineer shall confirm that the Grading Plan, Building Plans and Specifications require all construction contractors to comply with South Coast Air Quality Management District's (SCAQMD's) Rules 402 and 403 to minimize construction emissions of dust and particulates. The measures include, but are not limited to, the following:
>
> - Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
> - All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
> - All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
> - The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
> - Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.

In addition, PDF's to reduce energy consumption have also been included to the Project. All of these PDF's are listed in ***Section 3.6, Energy***. One of the PDFs, however, is listed below as it directly relates to air emissions and would reduce the production of Volatile Organic Compounds (VOCs) and ROGs.

- Use low volatile organic compound paints and wallpapers

Project operations assume an opening year of 2022 and would result in emissions of area sources (consumer products), energy sources (natural gas usage and offsite electricity generation), and mobile sources (motor vehicles from Project generated vehicle trips). Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. The Project vehicle trip generation was obtained from the Project's Transportation Impact Study prepared by Kimley-Horn (July 2020), which includes 971 total daily vehicle trips and 476 daily truck trips. Emissions rates in CalEEMod have been updated with CARB SAFE Rule adjustment factors and EMFAC2017 emission rates consistent with the methodology described in Section 5.2 Methodology for Converting EMFAC2014 Emission Rates into CalEEMod Vehicle Emission Factors of Appendix A: Calculation Details for CalEEMod in the CalEEMod User Guide. Other operational emissions from area, energy, and stationary sources were quantified in CalEEMod based on land use activity data. As a maximum of 50 percent of the warehouse s quare footage could be used for cold storage, emissions from transport refrigeration units (TRU) were assumed for 50 percent of the trucks generated by the Project (i.e., 238 truck round trips generated by 119 trucks would have TRUs). TRU emissions are based on rates from CARB's OFFROAD2017 model. TRU operational time per truck is based on a total of 2,584,684 operational hours per year and a total population of 5,823

(1.22 hours per day per truck) for CARB's OFFROAD2017 model for the South Coast portion of Riverside County.

As discussed above, the SCAQMD provides significance thresholds for emissions associated with Project construction and operations. The Project's construction and operational emissions are compared to the daily criteria pollutant emissions significance thresholds in order to determine the significance of a Project's impact on regional air quality.

The localized effects from the Project's on-site emissions were evaluated in accordance with the SCAQMD's LST Methodology, which uses on-site mass emissions rate look-up tables and Project-specific modeling. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.[2]

3.2.4 PROJECT IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Level of Significance: Significant and Unavoidable Impact

State CEQA Guidelines, § 15125 requires an analysis of project consistency with applicable governmental plans and policies.

As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan that demonstrates the means to attain the federal standards. The State Implementation Plan must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the state and federal ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project is located within the SCAB, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the FCAA, to reduce emissions of criteria pollutants for which the SCAB is in nonattainment. To reduce such emissions, the SCAQMD drafted the 2016 AQMP. The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, the SCAG, and the U.S. EPA. The AQMP's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2016 RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The Project is subject to the SCAQMD's AQMP.

[2] South Coast Air Quality Management District, SCAQMD Modeling Guidance for AERMOD, http://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance (accessed February 21, 2020).

Criteria for determining consistency with the AQMP are defined by the following indicators (it should be noted that both criteria must be met to determine impacts would be less than significant or no impacts would occur):

- **Consistency Criterion No. 1**: The Project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- **Consistency Criterion No. 2**: The Project will not exceed the assumptions in the AQMP or increments based on the years of the Project build-out phase.

According to the SCAQMD's *CEQA Air Quality Handbook*, the purpose of the consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus if it would interfere with the region's ability to comply with CAAQS and NAAQS. Therefore, the Project's potential impacts with respect to these criteria are discussed to assess the consistency with the SCAQMD 2016 AQMP.

Regarding Consistency Criterion No. 1, a significant impact may occur if a project would make a cumulatively considerable contribution to a pollutant in federal or state non-attainment. As shown above in ***Table 3.2-4***, the SCAB is currently in non-attainment for ozone, PM_{10}, and $PM_{2.5}$. SCAQMD recommends that significance thresholds be used to determine the potential cumulative impacts to regional air quality along with a project's consistency with the current AQMP. As discussed in Impact 3.2.2 below, the Project would not exceed construction emission standards for ozone, PM_{10}, or $PM_{2.5}$; however, as shown in ***Table 3.2-8***, below, Project operational emissions would exceed the operational standard for NO_X. Mitigation Measures (MM) AQ-1 through AQ-6 are included to reduce construction and operational air emissions (including NO_x) to the greatest amount feasible, through preparation and approval of a Transportation Demand Management program detailing strategies to reduce the use of single-occupant vehicles, the provision of electrical hookups including at loading bays, limitations on truck idling, education about funding opportunities for newer construction equipment, lease agreements that require heavy duty diesel trucks to meet more stringent emissions standards, and the provision of electric vehicle charging stations and infrastructure. These measures would reduce the operational levels of NO_x emissions associated with truck trips and idling. However, as shown in ***Table 3.2-9***, below, even with the implementation of these measures, NO_x emissions remain significant and would be above the SCAQMD's significance threshold, primarily as a result of the Project's mobile emissions. Because the purpose of the Project is to provide a distribution warehouse facility, reduction of truck trips (and thus mobile emissions) is not feasible. Therefore, the Project would potentially contribute to an existing air quality violation and the Project is not consistent with the first criterion.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of consistency with applicable population, housing, and employment growth projections and appropriate incorporation of AQMP control measures. The Project is currently located within two jurisdictions, the northern portion being located in the City of Beaumont and the southern portion being located in unincorporated Riverside County. The City portion

of the Project Site has been designated as Industrial (I) in the general plans and the two county parcels are designated for rural residential uses. Therefore, although the Annexation Area would be annexed into the City as part of the Project, the land use designation and development density would not exceed the population or job growth projections used by the SCAQMD to develop the AQMP. Thus, the Project is consistent with the second criterion.

Although the Project would be consistent with Consistency Criterion No. 2, it would nonetheless potentially contribute to an existing air quality violation, and therefore is not consistent with Consistency Criterion No. 1. Therefore, impacts are potentially significant, and the Project incorporates reasonable mitigation to reduce impacts to the extent feasible as required.

Mitigation Measures

Mitigation Measures AQ-1 through AQ-6 (refer to Impact Threshold 3.2-2, below).

Level of Significance: Significant and Unavoidable Impact. As discussed above, even with the implementation of all feasible mitigation measures, NO_x emissions remain above the SCAQMD's significance threshold, primarily as a result of the Project's mobile emissions. Because the purpose of the Project is to provide a distribution warehouse facility, reduction of truck trips (and thus mobile emissions) is not feasible. No additional feasible mitigation measures are available that can reduce impacts to less than significant.

Impact 3.2-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable state or federal ambient air quality standard?

Level of Significance: Significant Unavoidable Impact.

CONSTRUCTION EMISSIONS

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction would generate emissions of criteria air pollutants and precursors from short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include O_3-precursor pollutants (i.e., ROG and NO_X) and PM_{10} and $PM_{2.5}$. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

Construction activities associated with the Project are estimated to be completed within one year. Construction-generated emissions associated the Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See ***Appendix B, Air Quality Assessment*** for more

information regarding the construction assumptions used in this analysis. Predicted maximum daily construction-generated emissions for the Project are summarized in **Table 3.2-7, *Construction-Related Emissions (Maximum Pounds per Day)***.

Table 3.2-7: Construction-Related Emissions (Maximum Pounds per Day)

Construction Year	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})
Year 1 (2021)	33.81	55.00	63.3	0.19	10.35	6.4
SCAQMD Threshold	*75*	*100*	*550*	*150*	*55*	*150*
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Notes: SCAQMD Rule 403 Fugitive Dust applied. The Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; water exposed surfaces three times daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied. No mitigation was applied to construction equipment. Refer to ***Appendix B*** for Model Data Outputs.						
Source: CalEEMod version 2016.3.2. Refer to ***Appendix B*** for model outputs.						

Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. SCAQMD Rules 402 and 403 (prohibition of nuisances, watering of inactive and perimeter areas, track out requirements, etc.), are applicable to the Project and were applied in CalEEMod to minimize fugitive dust emissions. Project Design Feature/Standard Condition SC-1 requires the implementation of Rule 402 and 403 dust control techniques to minimize PM_{10} and $PM_{2.5}$ concentrations and PDFs for energy would reduce VOC and ROG emissions and overall energy use thereby reducing air emissions. In addition, the recommended mitigation measures would be required to comply with SCAQMD Rules and Regulations, which would be verified and enforced through the City's development review process.

Rule 1113 provides specifications on painting practices and regulates the ROG content of paint. As required by law, all architectural coatings for the Project structures would comply with SCAQMD Rule 1113. ***Table 3.2-7*** shows that Project construction would not exceed ROG thresholds without mitigation and ***Table 3.2-8*** shows that with the PDFs for energy, ROG emissions would be further reduced below SCAQMD thresholds.

As shown in ***Table 3.2-7***, all criteria pollutant emissions would remain below their respective thresholds. While impacts would be considered less than significant, the Project would be subject to SCAQMD Rules 402, 403, and 1113, described in the Regulatory Framework subsection above. In addition, implementation of SC-1 and MMs AQ-1 and AQ-6 would further reduce criteria pollutant emissions below thresholds.

OPERATIONAL EMISSIONS

Project operations would result in emissions of area sources (consumer products), energy sources (natural gas usage and offsite electrify generation), and mobile sources (motor vehicles from Project generated vehicle trips). Project-generated emissions would be primarily associated with motor vehicle use and area

sources such as the use of landscape maintenance equipment and architectural coatings. Long-term operational emissions attributable to the Project are summarized in **Table 3.2-8*: Unmitigated Operational Emissions***. As shown in ***Table 3.2-8***, the Project's operational emissions would exceed SCAQMD thresholds for NO_X. Therefore, regional operations emissions would result in a potentially significant long-term regional air quality impact.

Table 3.2-8*: Unmitigated Operational Emissions*

Source	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})
Area Source Emissions	12.41	<0.01	0.11	<0.01	<0.01	<0.01
Energy Emissions	0.43	3.93	3.30	0.02	0.30	0.30
Mobile Emissions	3.07	105.40	31.58	0.49	21.10	6.51
Transport Refrigeration Units	2.08	18.04	24.19	0.00	0.38	0.35
Off-Road Emissions	1.52	12.29	11.37	0.03	0.57	0.53
Total Emissions	**19.51**	**139.66**	**70.55**	**0.54**	**22.35**	**7.69**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to ***Appendix B*** for model outputs.

Area Source Emissions

Area source emissions would be generated due to on-site equipment, architectural coating, and landscaping that were previously not present on the site.

Energy Source Emissions

Energy source emissions would be generated due to electricity and natural gas usage associated with the Project. Primary uses of electricity and natural gas by the Project would be for miscellaneous warehouse equipment, space heating and cooling, water heating, ventilation, lighting, appliances, and electronics.

Mobile Source Emissions

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern. NO_X and ROG react with sunlight to form O_3, known as photochemical smog. Additionally, wind currents readily transport PM_{10} and $PM_{2.5}$. However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using the applicable Institute of Transportation Engineers trip generation rate within CalEEMod as recommended by the SCAQMD. Trip generation rates associated with the Project were based on the standard rates for warehousing. Based on these rates, the Project would generate 971 daily trips (49 percent trucks). As shown in ***Table 3.2-8***, the anticipated mobile source emissions would exceed SCAQMD thresholds for NO_X. Therefore, air quality impacts associated with mobile source emissions from the Project would be potentially significant. In order to reduce NO_X emissions from mobile sources the Project shall require MMS AQ-1 through AQ-6.

Transport Refrigeration Units (TRU) Emissions

TRU are refrigeration systems powered by diesel internal combustion engines designed to refrigerate or heat perishable products that are transported in various containers, including semi-trailers and truck vans.

Off-Road Emissions

Operational off-road emissions would be generated by off-road equipment used during operational activities. For this project it was assumed that warehouse would employ four electric forklifts for loading and unloading goods and two yard trucks.

As noted above, ***Table 3.2-8*** shows that unmitigated Project operational emission would exceed the SCAQMD thresholds for NO_X. The majority of NO_X emissions are from area and mobile sources. Mitigation measures would be required to reduce emissions to the maximum extent feasible; however, emissions of motor vehicles are controlled by State and Federal standards and the Project has no control over these standards. MMs AQ-1 through AQ-6 have been identified to reduce mobile source emissions and thereby reduce NO_X emissions from Project related mobile sources. MM AQ-1 requires the implementation of a Transportation Demand Management (TDM) program to reduce single-occupant vehicle trips and encourage transit. MM AQ-2 requires electrical hookups at all loading bays and MM AQ-3 prohibits idling when engines are not in use. Additionally, MM AQ-4 promotes the use of alternative fuels and clean fleets and MM AQ-5 requires the use of model year 2010 trucks or newer. MM AQ-6 requires electric vehicle charging stations and/or infrastructure to support the future installation of truck charging stations. ***Table 3.2-9: Mitigated Operational Emissions***, shows that with the implementation of MMs AQ-1 through AQ-6, NO_X emissions would remain above the SCAQMD's thresholds, primarily as a result of the Project's mobile emissions. Because the purpose of the Project is to provide a distribution warehouse facility, reduction of truck trips (and thus mobile emissions) is not feasible, and operational NO_x emissions impacts would be significant and unavoidable. As noted above, however, the Project does include numerous measures that would reduce engine use and reduce NO_x emissions to the extent feasible.

Table 3.2-9: Mitigated Operational Emissions

Source	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})
Area Source Emissions	12.41	<0.01	0.11	<0.01	<0.01	<0.01
Energy Emissions	0.43	3.93	3.30	0.02	0.30	0.30
Mobile Emissions	2.34	83.16	30.16	0.48	20.89	6.32
Transport Refrigeration Units	2.08	18.04	24.19	0.00	0.38	0.35
Off-Road Emissions	1.52	12.29	11.37	0.03	0.57	0.53
Total Emissions	**18.79**	**117.42**	**69.13**	**0.53**	**22.14**	**7.50**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to ***Appendix B*** for model outputs.

It should be noted that SCAQMD Rule 2305 requires the Project operator to directly reduce NO_X and particulate matter emissions or to otherwise facilitate emission and exposure reductions of these

pollutants in nearby communities. Alternatively, warehouse operators can choose to pay a mitigation fee. Funds from the mitigation fee will be used to incentivize the purchase of cleaner trucks and charging/fueling infrastructure in communities nearby.

Warehouse owners and operators are required to earn WAIRE Points each year. WAIRE points are a menu-based system earned by emission reduction measures. Warehouse operators are required to submit an annual WAIRE Report which includes truck trip data and emission reduction measures. WAIRE points can be earned by completing actions from a menu that can include acquiring and using natural gas, Near-Zero Emissions and/or Zero-Emissions on-road trucks, zero-emission cargo handling equipment, solar panels or zero-emission charging and fueling infrastructure, or other options. Therefore, the Project operator would be required to implement additional emission reduction strategies. Conservatively, this analysis does not take credit for these potential reductions. Compliance with Rule 2305 would reduce emissions below what is currently analyzed.

CUMULATIVE SHORT-TERM EMISSIONS

The SCAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. Appendix D of the SCAQMD White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (2003) notes that projects that result in emissions that do not exceed the project-specific SCAQMD regional thresholds of significance should result in a less than significant impact on a cumulative basis unless there is other pertinent information to the contrary. Therefore, typically if a project is estimated to result in emissions that do not exceed the thresholds, the project's contribution to the cumulative impact on air quality in the SCAB would not be cumulatively considerable. As shown in ***Table 3.2-7*** above, Project construction-related emissions by themselves would not exceed the SCAQMD significance thresholds for criteria pollutants. Therefore, the Project would not generate a cumulatively considerable contribution to air pollutant emissions during construction.

The SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the FCAA mandates. The analysis assumed fugitive dust controls would be utilized during construction, including frequent water applications. SCAQMD rules, mandates, and compliance with adopted AQMP emissions control measures would also be imposed on construction projects throughout the SCAB, which would include related projects. Compliance with SCAQMD rules and regulations would further reduce the Project construction-related impacts. Therefore, Project-related construction emissions, combined with those from other projects in the area, would not substantially deteriorate local air quality. Construction emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

CUMULATIVE LONG-TERM IMPACTS

The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would

result in a cumulatively considerable contribution to the SCAB's existing air quality conditions. Therefore, a project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in ***Table 3.2-9***, the Project operational emissions from mobile sources alone would exceed the SCAQMD threshold for NO_X despite the implementation of all feasible mitigation. As a result, operational emissions associated with the Project would result in a cumulatively considerable contribution to significant cumulative air quality impacts. Emissions of motor vehicles are controlled by State and Federal standards and the Project has no control over these standards. However, implementation of operational MMs AQ-1 through AQ-6 would reduce NOx emissions by reducing the number of employee vehicles onsite, reducing the amount of time trucks spend idling, and replacing older trucks with newer models. However, while the Project has some control over NO_X emissions, the majority of emissions are beyond the Project's control. Therefore, no additional feasible MMs beyond AQ-1 through AQ-6 are available to further reduce emissions, and cumulative operational NO_x impacts would remain significant and unavoidable.

As noted above, compliance with SCAQMD Rule 2305 (Warehouse Indirect Source Rule) is required for all existing and proposed warehouses greater than 100,000 square feet. Warehouse operators are required to implement additional emission reduction strategies or pay mitigation fee to reduce emissions. Compliance with Rule 2305 would reduce project emissions below what is currently analyzed and also reduce cumulative emissions.

Standard Conditions and Requirements

SC-1 Prior to the issuance of grading permits, the City Engineer shall confirm that the Grading Plan, Building Plans and Specifications require all construction contractors to comply with South Coast Air Quality Management District's (SCAQMD's) Rules 402 and 403 to minimize construction emissions of dust and particulates. The measures include, but are not limited to, the following:

- Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
- All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
- All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
- Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.

Mitigation Measures:

MM AQ-1 Prior to issuance of occupancy permits, the Project operator shall prepare and submit a Transportation Demand Management (TDM) program detailing strategies that would reduce the use of single-occupant vehicles by employees by increasing the number of trips by walking, bicycle, carpool, vanpool and transit. The TDM shall include, but is not limited to the following:

- Provide a transportation information center and on-site TDM coordinator to educate residents, employers, employees, and visitors of surrounding transportation options;
- Promote bicycling and walking through design features such as showers for employees, self-service bicycle repair area, etc. around the Warehouse Site.
- Provide on-site car share amenities for employees who make only occasional use of a vehicle, as well as others who would like occasional access to a vehicle of a different type than they use day-to-day;
- Promote and support carpool/vanpool/rideshare use through parking incentives and administrative support, such as ride-matching service; and
- Incorporate incentives for using alternative travel modes, such as preferential load/unload areas or convenient designated parking spaces for carpool/vanpool users.

MM AQ-2 Electrical hookups shall be provided as part of the tenant improvements for any tenant that requires cold storage. The electric hookups shall be provided at loading bays for truckers to plug in any onboard auxiliary equipment and power refrigeration units while their truck is stopped.

MM AQ-3 All truck access gates and loading docks within the Warehouse Site shall have a sign posted that states:

- Truck drivers shall turn off engines when not in use.
- Truck drivers shall shut down the engine after five minutes of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged.
- Telephone numbers of the building facilities manager and CARB to report Violations.

MM AQ-4 The Project Applicant shall make its tenants aware of the funding opportunities to aid in the availability of new and more efficient construction equipment, such as the Carl Moyer Memorial Air Quality Standards Attainment Program (Moyer Program), and other similar funding opportunities, by providing applicable literature available from the California Air Resources Board (CARB). The Moyer Program On-Road Heavy-Duty Vehicles Voucher Incentive Program (VIP) provides funding to individuals seeking to purchase new or used vehicles with 2013 or later model year engines to replace an existing vehicle that is to be scrapped.

MM AQ-5 Prior to the issuance of occupancy permits, the Project Applicant shall provide applicable portions of the lease agreements to the Planning Department verifying that the provisions

are included in the building lease agreements that heavy duty diesel trucks (Class 4 through 8) at a minimum meet the emissions standards of the 2010 vehicle model, and as trucks are replaced they are replaced with the newest available model.

MM AQ-6 Prior to the issuance of building permits, the City of Beaumont Planning Department shall verify that applicable building plans and specifications include electric vehicle charging stations and/or infrastructure to support the future installation of vehicle charging stations.

Level of Significance: Significant and Unavoidable Impact. No additional feasible mitigation measuresare available that can reduce impacts to less than significant.

Impact 3.2-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

Level of Significance: Less Than Significant Impact

LOCALIZED CONSTRUCTION SIGNIFICANCE ANALYSIS

The nearest sensitive receptor is a residential community located 550 feet (167 meters) to the north of the Project and separated by the SR-60 freeway from the Project Site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific emissions.

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, **Table 3.2-10: *Equipment-Specific Grading Rates***, is used to determine the maximum daily disturbed acreage for comparison to LSTs. The appropriate SRA for the localized significance thresholds is the Banning Pass Area (SRA 29) since this area includes the Project. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to five acres in size. Project construction is anticipated to disturb a maximum of four acres in a single day. As the LST guidance provides thresholds for projects disturbing 1-, 2-, and 5-acres in size and the thresholds increase with size of the site, the LSTs for a four-acre threshold were interpolated and utilized for this analysis.

Table 3.2-10: Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Grading	Tractors	2	0.5	8	0.5
	Graders	1	0.5	8	0.5
	Dozers	1	0.5	8	1.5
	Scrapers	2	1	8	2
Total Acres Graded per Day					**4.0**

Source: CalEEMod version 2016.3.2. Refer to ***Appendix B*** for model outputs.

The SCAQMD's methodology states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs." Therefore, only emissions included in the CalEEMod "on-site" emissions outputs were considered. The nearest sensitive receptors are the single-family residences proposed and approved for construction, to be located 550 feet (167 meters) north of the Project. This presents a highly conservative analysis, given that these sensitive receptors: (1) have yet to be constructed; and (2) are located on the far side of SR-60, which generates substantially greater emissions than the Project would during either construction or operation.

LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, LSTs for receptors located at 167 meters were interpolated and utilized in this analysis. **Table 3.2-11: *Localized Significance of Construction Emissions***, presents the results of localized emissions during each construction phase. In addition, construction, paving, and architectural coating emissions were also combined since these phases of construction are anticipated to overlap. ***Table 3.2-11*** shows that emissions of these pollutants on the peak day of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Significant impacts would not occur concerning LSTs during construction.

Table 3.2-11: Localized Significance of Construction Emissions

Construction Activity	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Site Preparation	40.50	21.15	10.17	6.35
Grading	46.40	30.88	5.89	3.45
Building Construction	17.43	16.57	0.95	0.90
Paving	12.91	14.65	0.67	0.62
Architectural Coating	1.52	1.81	0.09	0.09
Combined Building Construction, Paving, and Architectural Coating	31.86	33.03	1.71	1.61
SCAQMD Localized Screening Threshold (adjusted for 4.0 acres at 167 meters)	*300*	*4,842*	*94*	*22*
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
Source: CalEEMod version 2016.3.2. Refer to ***Appendix B*** for model outputs.				

LOCALIZED OPERATIONAL SIGNIFICANCE ANALYSIS

According to the SCAQMD LST methodology, LSTs would apply to the operational phase of a project only if it includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). Since the Project is a warehouse, the operational phase LST protocol is conservatively applied to both the area source and all the mobile source emissions. LSTs thresholds for receptors located at 100 meters in SRA 29 were conservatively utilized in this analysis because the closest receptors would be located 167 meters away. Although the warehouse would occupy approximately 31.26 acres, the five-acre LST threshold was applied to the Project.

The LST analysis only includes on-site sources. However, the CalEEMod model outputs do not separate on- and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown

in ***Table 3.2-12: Localized Significance of Operational Emissions***, conservatively include all on-site Project-related stationary sources and 100 percent of the Project-related new mobile sources, since a portion of mobile sources could include trucks idling on-site. ***Table 3.2-12*** shows that the maximum daily emissions of these pollutants during operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during operational activities.

Table 3.2-12: Localized Significance of Operational Emissions

Activity	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
On-Site and Mobile Source Emissions	107.74	51.55	21.62	6.99
SCAQMD Localized Screening Threshold (adjusted for 5 acres at 167 meters)	*368*	*5,264*	*35*	*11*
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
Source: CalEEMod version 2016.3.2. Refer to ***Appendix B*** for model outputs.				

In addition, SCAQMD's Rule 2305 would require the Project to directly reduce NO_X and particulate matter emissions, or to otherwise facilitate emissions and exposure reductions of these pollutants in nearby communities. The Project operator may be required to implement additional emission reduction strategies. Conservatively, this analysis is not taking credit for these potential reductions. Compliance with Rule 2305 would reduce emissions below what is currently analyzed.

Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (*Sierra Club v. County of Fresno* [Friant Ranch, L.P.] [2018] 6 Cal.5th 502.)

The Friant Ranch project was a 942-acre Specific Plan that involved a commercial master-planned community of approximately 2,500 dwelling units and extensive commercial supporting development. The anticipated air quality impacts resulting from this development included significant and unavoidable emissions of multiple criteria pollutants (including significant emissions of both primary O_3 precursors [NO_X and ROGs]) at levels that exceeded the daily thresholds of significance. As noted above and shown in ***Table 3.2-9***, the Project's operational emissions will exceed the SCAQMD's NO_X significance thresholds, resulting in a significant and unavoidable impact.

The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme ozone nonattainment areas such as the SCAB) as emitting 10 tons per year. The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program[3] was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with

[3] Code of Federal Regulation (CFR) [i.e., PSD (40 CFR 52.21, 40 CFR 51.166, 40 CFR 51.165 (b)), Non-attainment NSR (40 CFR 52.24, 40 CFR 51.165, 40 CFR part 51, Appendix S)

attainment of health-based FAAQS. The FAAQS establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's LSTs and mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts.

NO_X and ROG are precursor emissions that form ozone in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. Breathing ground-level ozone can result health effects that include: reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily ozone concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that ozone can make asthma symptoms worse and can increase sensitivity to asthma triggers.

According the SCAQMD's 2016 AQMP, ozone, NO_X, and ROG have been decreasing in the SCAB since 1975 and are projected to continue to decrease in the future. Although vehicle miles traveled in the SCAB continue to increase, NO_X and ROG levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to the use of cleaner fuels and renewable energy. The 2016 AQMP demonstrates how the SCAQMD's control strategy to meet the 8-hour ozone standard in 2023 would lead to sufficient NO_X emission reductions to attain the 1-hour ozone standard by 2022. In addition, since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the ozone standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of $PM_{2.5}$ standards.

The SCAQMD's air quality modeling demonstrates that NO_X reductions prove to be much more effective in reducing ozone levels and will also lead to significant improvement in $PM_{2.5}$ concentrations. NO_X-emitting stationary sources regulated by the SCAQMD include Regional Clean Air Incentives Market (RECLAIM) facilities (e.g., refineries, power plants, etc.), natural gas combustion equipment (e.g., boilers, heaters, engines, burners, flares) and other combustion sources that burn wood or propane. The 2016 AQMP identifies robust NO_X reductions from new regulations on RECLAIM facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest NO_X emissions levels achievable but there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial furnaces, pool heaters, and backup power equipment. The AQMD plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

The 2016 AQMP also emphasizes that beginning in 2012, continued implementation of previously adopted regulations will lead to NO_X emission reductions of 68 percent by 2023 and 80 percent by 2031. With the addition of 2016 AQMP proposed regulatory measures, a 30 percent reduction of NO_X from stationary

sources is expected in the 15-year period between 2008 and 2023. This is in addition to significant NO_X reductions from stationary sources achieved in the decades prior to 2008.

Part of the control process of the SCAQMD's duty to greatly improve the air quality in the SCAB is the uniform CEQA review procedures required by SCAQMD's CEQA Handbook. The single threshold of significance used to assess direct project and cumulative impacts has improved air quality as evidenced by the track record of the air quality in the SCAB dramatically improving over the course of the past decades. As stated by the SCAQMD, the thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for the Project.

Toxic Air Contaminants (TAC) Trends. In 1984, as a result of public concern for exposure to airborne carcinogens, CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. According to the Ambient and Emission Trends of Toxic Air Contaminants in California journal article[4] which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (between 1990 and 2012). The seven TACs studied include those that are derived from mobile sources: DPM, benzene, and 1,3-butadiene; those that are derived from stationary sources: perchloroethylene and hexavalent chromium; and those derived from photochemical reactions of emitted VOCs: formaldehyde and acetaldehyde. TACs data was gathered at monitoring sites from both the Bay Area and South Coast air basins. Several of the sites in the SCAB include Reseda, Compton, Rubidoux, Burbank, and Fontana. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

Mobile Source TACs. CARB introduced two programs that aimed at reducing mobile emissions for light and medium-duty vehicles through vehicle emissions controls and cleaner fuel. In California, light-duty vehicles sold after 1996 are equipped with California's second-generation On-Board Diagnostic system. The On-Board Diagnostic II system monitors virtually every component that can affect the emission performance of the vehicle to ensure that the vehicle remains as clean as possible over its entire life and assists repair technicians in diagnosing and fixing problems with the computerized engine controls. If a problem is detected, the On-Board Diagnostic II system illuminates a warning lamp on the vehicle instrument panel to alert the driver. This warning lamp typically contains the phrase Check Engine or Service Engine Soon. The system will also store important information about the detected malfunction so that a repair technician can accurately find and fix the problem. CARB has recently developed similar On-Board Diagnostic requirements for heavy-duty vehicles over 14,000 pounds. CARB's phase II Reformulated Gasoline regulation, adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88 percent from 1990-2012. 1,3-Butadiene concentrations also declined 85 percent from 1990-2012 as a result of the use of reformulated gasoline and motor vehicle regulations.[5]

[4] Ralph Propper, Patrick Wong, Son Bui, Jeff Austin, William Vance, Alvaro Alvarado, Bart Croes, and Dongmin Luo, *Ambient and Emission Trends of Toxic Air Contaminants in California. American Chemical Society: Environmental Science & Technology,* 2015.

[5] Ibid.

In 2000, CARB's Diesel Risk Reduction Plan recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15 parts per million [ppm]) diesel fuel. As a result of these measures, DPM concentrations have declined 68 percent since 2000, even though the State's population increased 31 percent and the amount of diesel vehicles miles traveled increased 81 percent. With the implementation of these diesel-related control regulations, CARB expects a DPM decline of 71 percent for 2000-2020.

Cancer Risk Trends. Based on information available from CARB, overall cancer risk throughout the SCAB has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, CARB identified particulate matter from diesel-fueled engines as a TAC. The SCAQMD initiated a comprehensive urban toxic air pollution study, called MATES-II (for Multiple Air Toxics Exposure Study). DPM accounts for more than 70 percent of the cancer risk. In 2008, the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III estimates the average excess cancer risk level from exposure to TACs is an approximately 17 percent decrease in comparison to the MATES-II study. Nonetheless, the SCAQMD's most recent in-depth analysis of the TACs and their resulting health risks for all of southern California was from the *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES IV,"* which shows that cancer risk has decreased more than 55 percent between MATES III (2005) and MATES IV (2015).[6]

Criteria Pollutant Health Risk. As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case (April 6, 2015) (Brief), the SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes. SCAQMD receives as many as 60 or more CEQA documents each month (around 500 per year) in its role as commenting agency or an agency with "jurisdiction by law" over air quality. The SCAQMD staff provides comments on as many as 25 or 30 such documents each month. Therefore, this analysis relies on SCAQMD expertise, thresholds, and guidance to disclose the Project's air quality impacts.

The SCAQMD discusses that it may be infeasible to quantify health risks caused by individual projects, due to various factors. It is necessary to have data regarding the sources and types of TACs, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk and it does not necessarily mean anyone will contract cancer as a result of the project. The Brief also cites the author of the CARB methodology, which reported that a $PM_{2.5}$ methodology is not suited for small projects and may yield unreliable results. Similarly, SCAQMD staff does not currently know of a way to accurately quantify O_3-related health impacts caused by NO_X or ROG (VOC) emissions from relatively small projects, due to photochemistry and regional model limitations. The Brief concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful.

[6] South Coast Air Quality Management District, *The Multiple Air Toxics Exposure Study IV,* 2015.

Conversely, for extremely large regional projects, the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 pounds per day of NO_X and 89,180 pounds per day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to O_3.

The Brief makes it clear that SCAQMD does not believe that there must be a quantification (or that it is even feasible to provide a meaningful quantification) of a project's health risks in all CEQA documents prepared for individual projects. Any attempt to quantify the Project's health risks would be considered unreliable and misleading. Also, the Project does not generate anywhere near 6,620 pounds per day of NO_X or 89,190 pounds per day of ROG (VOC) emissions, which SCAQMD stated was a large enough emission to quantify O_3-related health impacts. Therefore, the Project's emissions are not sufficiently high enough to use regional modeling program to correlate health effects on a basin-wide level. Notwithstanding, as previously noted, a site-specific localized impact analysis that does correlate potential Project health impacts on a local level to immediately adjacent land uses is included above.

While the Project is expected to exceed the SCAQMD's numeric regional mass daily thresholds for NO_X, this does not in itself constitute a significant health impact to the population adjacent to the Project and within the SCAB, as clearly noted in the Brief.

The SCAQMD's numeric regional thresholds are based in part on Section 180(e) of the FCAA – it should be noted that the numeric regional mass daily thresholds have not changed since their adoption as part of the *CEQA Air Quality Handbook* published by SCAQMD in 1993 (over 20 years ago). The numeric regional mass daily thresholds are also intended to provide a means of consistency in significance determination within the environmental review process. Notwithstanding, simply exceeding the SCAQMD's numeric regional mass daily thresholds does not constitute a particular health impact to an individual receptor. The reason for this is that the mass daily thresholds are in pounds per day emitted into the air whereas health effects are determined based on the concentration of emissions in the air at particular receptor (e.g., parts per million by volume of air, or micrograms per cubic meter of air). State and federal AAQS were developed to protect the most susceptible population groups from adverse health effects and were established in terms of parts per million or micrograms per cubic meter for the applicable emissions.

Furthermore, as discussed previously, air quality trends for both emissions of NO_X, VOCs, and O_3 (which is a byproduct of NO_X and VOCs) have been trending downward within the air basin even as development has increased over the last several years. Therefore, although the Project would exceed the SCAQMD's numeric thresholds for emissions of NO_X, this does not in itself constitute a basin-wide increase in health effects related to these pollutants.

As noted in the SCAQMD Brief, the SCAQMD has acknowledged that for criteria pollutants it would be extremely difficult, if not impossible to quantify health impacts for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Furthermore, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (April 13, 2015), San Joaquin Valley Air Pollution Control District has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts. The San Joaquin Valley Air Pollution Control

District notes, "…the Air District is simply not equipped to analyze and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area…even for projects with relatively high levels of emissions of criteria pollutant precursor emissions."

As noted above, the Project does not generate anywhere near 6,620 pounds per day of NO_X or 89,190 pounds per day of VOC emissions. Project Operations would generate 139.66 pounds per day of NO_X emissions prior to the incorporation of mitigation, and only 68.40 pounds per day after the incorporation of MMs AQ-1 through AQ-6, and would not exceed other criteria pollutant thresholds. Therefore, the Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level.

Notwithstanding, as previously noted, the analysis above includes a localized impact analysis that correlate potential health impacts on a local level to immediately adjacent land uses. Unfortunately, current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences. For this reason, discussion above explains in meaningful detail why it is not feasible to provide such a numerical analysis, but why health-based impacts are nonetheless anticipated to be less than significant.

Information on health impacts related to exposure to O_3 and particulate matter emissions published by the U.S. EPA and CARB have been summarized above and discussed in the Regulatory Framework section. Health studies are used by these agencies to set the Federal and State AAQS. None of the health-related information can be directly correlated to the pounds/day or tons/year of emissions estimated from a single project.

The Project's exceedance of the SCAQMD's NO_x mass emissions thresholds will contribute to the formation of ozone in the atmosphere that could potentially contribute to the SCAB's current ozone air quality violation, thus contributing to potential associated health effects in the region. However, ozone is not formed at the location of emission and the quantity of precursor emissions is not proportional to local ozone concentrations. The emission of NO_X and ROG do not directly cause health effects; it is the resulting concentration of criteria pollutants, which is influenced by sunlight, chemical reactions, and transport (i.e., regional impacts), that are not feasible to model at the Project level.[7] In addition, current SCAQMD and CARB regulations will reduce the emissions below what is shown in ***Table 3.2-9***. However, due to the uncertainty in the relationship between project-level mass emissions and regional ozone formation as well as limitations with currently available technical tools, the resulting health effects associated with the Project cannot be identified. Given this is speculative, it is not considered a significant environmental impact.

As previously discussed, localized effects of on-site Project emissions on nearby receptors were found to be less than significant (refer to ***Table 3.2-11*** and ***Table 3.2-12***). The LSTs represent the maximum

[7] As noted in the San Joaquin Valley Air Pollution Control District (SJVAPCD) Amicus Curiae Brief for *Sierra Club v. County of Fresno, t*he computer models used to simulate and predict and attainment date for ozone or particulate matter NAAQS are based on regional inputs, such as regional inventories of precursor pollutants (NO_X, SO_X, and VOCs) and atmospheric chemistry and meteorology. The models simulate future ozone or PM levels based on predicted changes in precursor emissions region wide. The goal of these modeling exercises is not to determine whether the emissions generated by a particular factory or development project will affect the NAAQS attainment date. Rather, the air district modeling and planning strategy is regional in nature and based on the extent to which all of emission-generating sources (current and future) must be controlled in order to reach attainment.

emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable state or federal AAQS. The LSTs were developed by the SCAQMD based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor. The AAQS establish the levels of air quality necessary, with an adequate margin of safety, to protect public health, including protecting the health of sensitive populations. However, as discussed above, neither the SCAQMD nor any other air district currently have methodologies that would provide Lead Agencies and CEQA practitioners with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions. Information on health impacts related to exposure to ozone and particulate matter emissions published by the U.S. EPA and CARB have been summarized above and discussed in the Regulatory Framework section. Health studies are used by these agencies to set the Federal and State AAQS. None of the health-related information can be directly correlated to the pounds/day or tons/year of emissions estimated from a single, proposed project. Therefore, without thresholds and standards there is no way to ascertain if there is a significant environmental impact.

Carbon Monoxide Hotspots

An analysis of CO "hot spots" is needed to determine whether the change in the level of service of an intersection resulting from the Project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined. Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard.

The SCAB was re-designated as attainment for CO in 2007 and is no longer addressed in the SCAQMD's AQMP. The 2003 AQMP is the most recent version that addressed CO concentrations. As part of the SCAQMD *CO Hotspot Analysis*, the Wilshire Boulevard/Veteran Avenue intersection, one of the most congested intersections in southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm Federal standard. The Project considered herein would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's *CO Hotspot Analysis*. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection even as it accommodates 100,000 vehicles daily, it can be reasonably inferred that CO hotspots would not be experienced at any vicinity intersections resulting from 971 additional vehicle trips attributable to the Project. Therefore, impacts would be less than significant.

Construction-Related Diesel Particulate Matter

Construction would result in the generation of DPM emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission

levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment dissipates rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The closest sensitive receptors are located approximately 550 feet from the property boundary and major Project construction areas.

California Office of Environmental Health Hazard Assessment has not identified short-term health effects from DPM. Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by construction activities, in and of itself, would not be expected to expose sensitive receptors to substantial amounts of air toxics. A construction phase Health Risk Assessment (see ***Appendix C***) was conducted for the Project. Maximum (worst case) PM_{10} exhaust construction emissions over the entire construction period were used to approximate construction DPM emissions. Risk levels were calculated based on the California Office of Environmental Health Hazard Assessment (OEHHA) guidance document, Air Toxics Hot Spots Program Risk Assessment Guidelines (February 2015). Results of the assessment indicate that the cancer risk would be 1.96 in one million at the Maximally Exposed Individual Resident (MEIR) (i.e., the closest sensitive receptor, located approximately 550 feet away), which would not exceed the SCAQMD threshold of 10 in one million. Non-cancer hazards for DPM would be below SCAQMD threshold of 1.0, with a chronic hazard index computed at 0.002 and an acute hazard index of 0.088. Therefore, construction risk levels would be less than SCAQMD thresholds. Impacts would be less than significant.

Operational Diesel Particulate Matter

An operational phase Health Risk Assessment (see ***Appendix C***) was conducted based on the SCAQMD's Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis and the SCAQMD Risk Assessment Procedures and the guidance from the California OEHHA. The analysis includes on-site and off-site impacts from the diesel trucks accessing the warehouse development on nearby residential and worker receptors.

The On-Road Motor Vehicle Emission Inventory Model (EMFAC) 2017 version 1.0.2 was used to obtain the emission factors for in grams per mile for vehicle travel and grams per hour for vehicle idling. Truck emissions were based on the first possible year of operations for a fleet mix of various aged vehicles, as opposed to average emissions over a 30-year window. Trucks were assumed to travel at a speed of 25 to 30 miles per hour (mph) (depending on roadway) for off-site truck travel and 10 mph for on-site truck travel.

Idling emissions were represented in the model via line volume sources along each loading dock and 15 minutes of idling[8] for each truck was assumed. Truck travel emissions were represented in the model via line volume sources along local roads and inside the facility where the trucks are expected to travel. Trucking routes were determined per the traffic impact analysis conducted for the Project.

Air dispersion modeling for the Health Risk Assessment was performed using the U.S. EPA AERMOD dispersion model. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the stack heights of the emission sources (not a factor in this case). AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. Uniform Cartesian receptors were used to evaluate the locations of the maximally exposed sensitive receptors. Surface and upper air meteorological data from the Banning Monitoring Station provided by the SCAQMD was selected as being the most representative meteorology. In addition, National Elevation Dataset (NED) terrain data was imported into AERMOD for the Project. The modeling and analysis was prepared in accordance with the SCAQMD Modeling Guidance for AERMOD.[9]

Note that the concentration estimate developed using this methodology is conservative and is not a specific prediction of the actual concentrations that would occur at the Warehouse Site any one point in time. Actual 1-hour and annual average concentrations are dependent on many variables, particularly the number and type of vehicles and equipment operating at specific distances during time periods of adverse meteorology. A health risk computation was performed to determine the risk of developing an excess cancer risk calculated on these worst-case exposure duration scenarios. The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the OEHHA Guidance Manual. Only the risk associated with the worst-case location of the Project was assessed.

A health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 70-year exposure scenario using CARB's Risk Assessment Stand Alone Tool (RAST). Health risk were analyzed at the point of maximum impact and are a conservative estimate. The pollutant concentrations are then used to estimate the long-term cancer health risk to an individual as well as the non-cancer chronic health index.

The cancer and chronic health risks are based on the annual average concentration of PM_{10} (used as a proxy for DPM). As DPM does not have short-term toxicity values, acute risks were conservatively evaluated using hourly PM_{10} concentrations and the Reference Exposure Limit (REL) for acrolein. The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the U.S. EPA *Human Health Evaluation Manual* (1991) and the OEHHA Guidance Manual (2015).

Based on the AERMOD outputs, the highest annual average diesel PM_{10} emission concentrations from diesel truck traffic near sensitive receptors would be 0.002 µg/m^3. The calculations conservatively assume

[8] An idling time of 15 minutes per truck has been used per SCAQMD recommendations. Although the Project is required to comply with CARB's idling limit of 5 minutes, the SCAQMD recommends the on-site idling emissions should be estimated for 15 minutes of truck idling, which would take into account on-site idling that occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

[9] South Coast Air Quality Management District, *SCAQMD Modeling Guidance for AERMOD*, http://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance, accessed September 2020.

no cleaner technology with lower emissions in future years. As shown in ***Table 3.2-13, Operational Risk Assessment Results,*** the highest calculated carcinogenic risk resulting from the Project is 1.76 per million. Additionally, MM AQ-5 requires model year 2010 trucks or newer. Emissions associated with MM AQ-5 have also been quantified and provided in ***Table 3.2-13***. As shown, impacts in the table reflect both pre-mitigation risk as well as risk after mitigation is implemented. As shown, with implementation of Project design features, neither would exceed thresholds related to cancer risk and impacts would be less than significant at nearby residential communities.

Table 3.2-13 Operational Risk Assessment Results

Exposure Scenario	Maximum Cancer Risk (Risk per Million)[1]	Significance Threshold (Risk per Million)	Exceeds Significance Threshold?
Residents (Without Electric Off-Road Equipment Project Design Feature and without Air Quality Mitigation) [2]	66.6	10	Yes
Residents (With Electric Off-Road Equipment Project Deign Feature and Without Air Quality Mitigation) [3]	1.56	10	No
Residents (With Electric Off-Road Equipment Project Design Feature and With Air Quality Mitigation) [4]	0.78	10	No

1. The reported annual pollutant concentration is at the closest receptor (maximally exposed individual resident). The maximally exposed individual resident would be at the residences located to the northwest of the SR-60/Potrero Boulevard interchange (approximately 550 feet north of the Project's property line). Maximum cancer risk is based on worst-case exposure durations for the Project, 95th percentile breathing rates, and 70-year averaging time.
2. The unmitigated exposure scenario conservatively shows the risk without implementation of Air Quality Assessment MM AQ-5 and without Project Design Features (all yard trucks would be powered by non-diesel fuel and all indoor forklifts would be powered by electricity).
3. The unmitigated scenario with electric off-road equipment includes implementation of Project Design Features.
4. MM AQ-5 requires the use of 2010 model year trucks or newer.

Refer to ***Appendix C***.

Acute and chronic impacts were also evaluated in the Health Risk Assessment. An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the reference exposure level. The highest maximum chronic and acute hazard index associated with both DPM and acrolein emissions from the Project would be 0.0135 and 0.0508, respectively. As a result, non-carcinogenic hazards are calculated to be within acceptable limits. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance: Less than Significant Impact.

Impact 3.2-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Level of Significance: Less than Significant Impact

The SCAQMD *CEQA Air Quality Handbook* identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Project would not include any of the land uses that have been identified by the SCAQMD as odor sources.

During construction-related activities, some odors (not substantial pollutant concentrations) that may be detected are those typical of construction vehicles (e.g., diesel exhaust from grading and construction equipment). These odors are a temporary short-term impact that is typical of construction projects and would disperse rapidly. The Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, the Project would not create objectionable odors and impacts would be less than significant.

Mitigation Measures

No mitigation is required.

3.2.5 SIGNIFICANT UNAVOIDABLE IMPACTS

With implementation of the Project, significant unavoidable impacts would occur in the following areas despite the implementation of all feasible mitigation measures:

- Conflict with or obstruct implementation of the applicable air quality plan, due to operational NO_x emissions; and
- Result in a cumulatively considerable net increase in a criteria pollutant for which the Project region is non-attainment, due to operational NO_x emissions.

3.2.6 CUMULATIVE IMPACTS

For purposes of air quality impact analysis, cumulative impacts are considered in conjunctions with past, present, and reasonably foreseeable projects and are discussed in Impact 3.2-2, above which considers if the Project would result in a cumulatively considerable net increase of any criteria pollutant for which region is in non-attainment under an applicable state or federal AAQS. As shown in ***Table 3.2-8, Mitigated Operational Emissions***, regional operations emission of NO_x would exceed thresholds and would result in a potentially significant long-term regional air quality impact. While all reasonable efforts have been undertaken to include incorporation of SC-1 and MMs AQ-1 through AQ-6 to reduce air emissions, emissions of NO_x would remain above thresholds. Because this is due largely to use of diesel engines as a necessary component of operation of the Project as a warehouse, there are no additional feasible measures to reduce emissions from the vehicles. Thus, this significant unavoidable. cumulative impacts related to NO_x emissions would remain.

3.2.7 REFERENCES

California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, 2018.

California Air Pollution Control Officers Association (CAPCOA), *Health Risk Assessments for Proposed Land Use Projects*, 2009.

California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Top Four Summaries from 2015 to 2017*, 2019.

California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005.

California Air Resources Board, *Current Air Quality Standards*, 2016.

California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000.

City of Beaumont, *City of Beaumont General Plan*, 2007

City of Beaumont, *Code of Ordinances*, 2018

Douglas Franz, *Preliminary Site Plan,* Progress Set August 27, 2019.

Federal Highway Administration*, Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents,* 2016.

Kimley-Horn Associates, *Air Quality Assessment*, 2021.

Kimley-Horn Associates, *Health Risk Assessment*, 2021.

Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, 2015.

Ralph Propper, Patrick Wong, Son Bui, Jeff Austin, William Vance, Alvaro Alvarado, Bart Croes, and Dongmin Luo, *Ambient and Emission Trends of Toxic Air Contaminants in California. American Chemical Society: Environmental Science & Technology,* 2015.

Southern California Association of Governments, *2016 - 2040 Regional Transportation Plan/Sustainable Communities Strategy*, 2016.

South Coast Air Quality Management District, *2016 Air Quality Management Plan,* March 2017.

South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

South Coast Air Quality Management District, *Localized Significance Threshold Methodology*, 2009.

South Coast Air Quality Management District, *The Multiple Air Toxics Exposure Study IV,* 2015.

United States Environmental Protection Agency, *National Ambient Air Quality Standards Table*, 2016.

United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants*, 2019.

United States Environmental Protection Agency, *Policy Assessment for the Review of the Lead National Ambient Air Quality Standards*, 2013.