

MEMORANDUM

To: NorthPoint Development

From: Tina Yuan, Michael Baker International

Date: January 21, 2025

Subject: SPR 24-010 – Air Quality Assessment Memorandum

PURPOSE

The purpose of this technical memorandum is to evaluate potential short- and long-term air quality impacts that would result from the construction and operation of the proposed SPR 24-010 (project), located in the City of Lancaster (City), California.

PROJECT LOCATION

The City is in the Antelope Valley in northern Los Angeles County (County), approximately 70 miles north of downtown Los Angeles; refer to Exhibit 1, *Regional Vicinity*. The project site is located within the northern portion of the City and consists of two noncontiguous parcels (Assessor's Parcel Numbers [APNs] 3114-010-041 and 3114-010-054). Generally, the project site is bound by West Avenue F 8 to the north, 25th Street West to the east, and 30th Street West to the west; refer to Exhibit 2, *Site Vicinity*. Regional access to the site is available via State Route 14 (SR-14) at the Avenue G exit, approximately 0.4-mile east of the project site. Local access to the site is provided via Avenue G and 30th Street West.

EXISTING SITE CONDITIONS

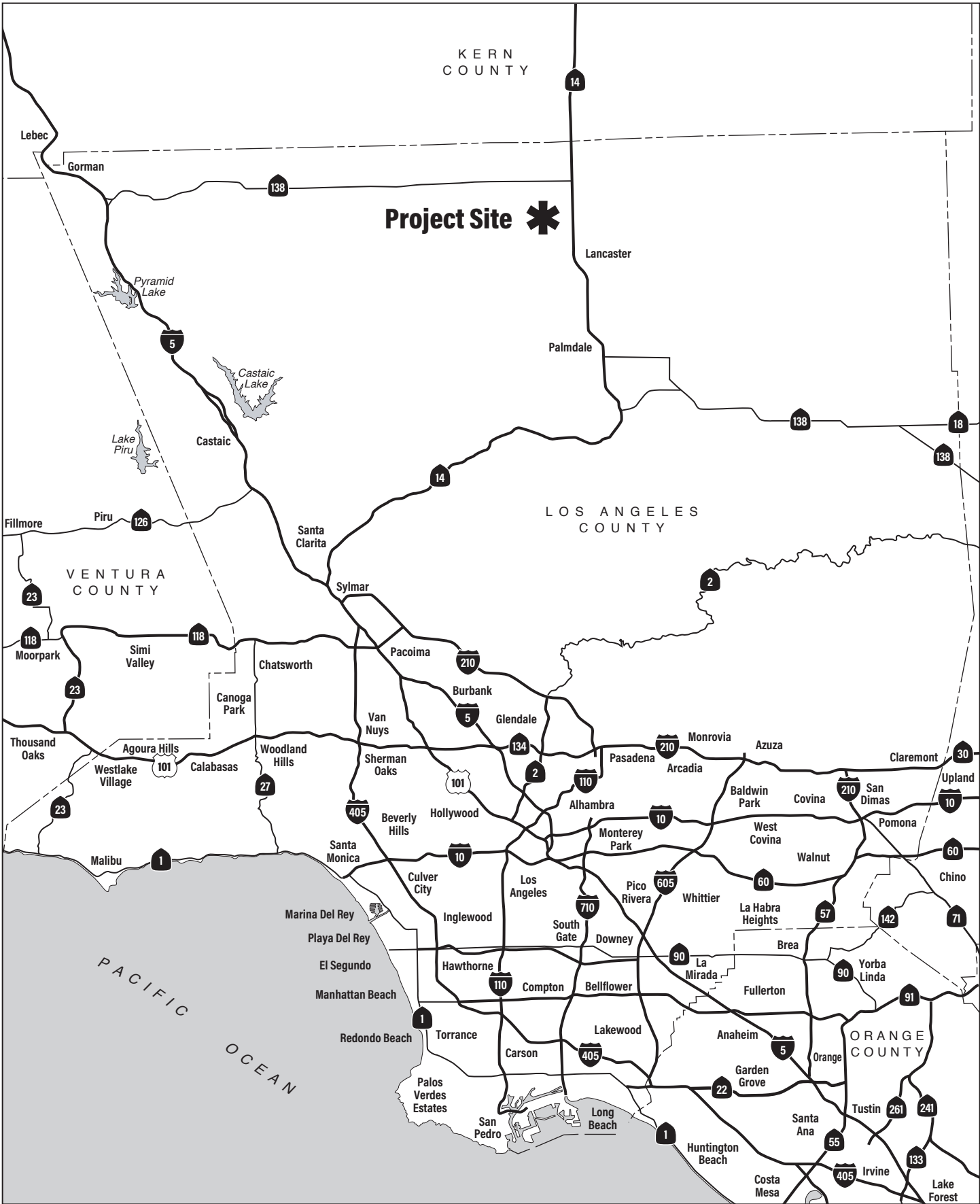
The approximately 26.8-acre site comprises two separate parcels: one located near the intersection of West Avenue F-8 and 30th Street West (northern portion, APN 3114-010-041), and another along 25th Street West (eastern portion, APN 3114-010-054). The site is currently vacant, with no existing structures or paved roads present. To the west and south of the project site is a planned industrial development.

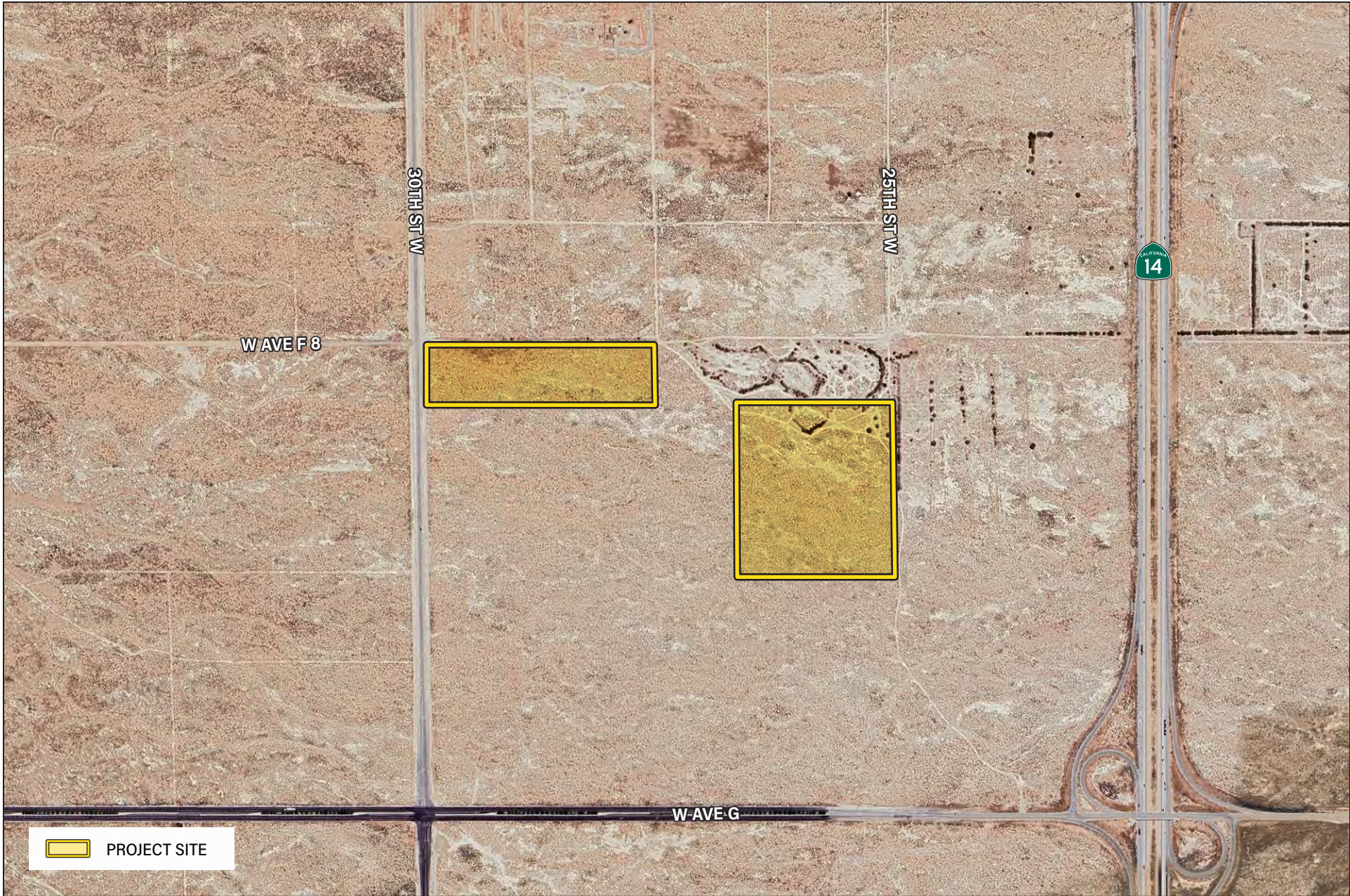
The project site is designated "Light Industry (LI)" with a "Specific Plan" overlay based on the *General Plan Land Use Map* in the *Lancaster General Plan 2030* (General Plan).¹ The project site is zoned "SP 95-02 Fox Field Industrial Corridor Specific Plan" based on the *City of Lancaster Zoning Map*.² Based on the *Fox Field Industrial Corridor Specific Plan*, the project site is located within focused area "Fox Field East" and designated "Light Industrial", "Manufacturing/Distribution (MFG)", and "Park".³

¹ City of Lancaster, *Lancaster General Plan 2030, General Plan Land Use Map*, adopted July 14, 2009, updated September 1, 2015.

² City of Lancaster, *City of Lancaster Zoning Map*, adopted July 13, 2010, revised October 26, 2022.

³ City of Lancaster, *Fox Field Industrial Corridor Specific Plan*, May 31, 1996.





Source: Google Earth Pro, December 2024

The project site is surrounded by vacant undeveloped land and the planned industrial development. Prominent land uses in the project vicinity include several single-family residences, temporary storage facilities, and associated unpaved roadways to the north; transportation use (SR-14) to the east; industrial/warehousing uses to the south; and the General William J. Fox Airfield and Apollo Community Regional Park west of the site.

PROJECT DESCRIPTION

The project considers two development options for the vacant site: Warehouse Option and Trailer Parking Lot Option. The Warehouse Option would include an approximately 510,000-square-foot warehouse building in the eastern portion of the site and an approximately 8.55-acre detention basin in the western portion. The Trailer Parking Lot Option would include a 16.8-acre detention basin in the northern portion and a trailer parking lot in the eastern portion of the site serving the planned industrial development to the west of the project site. The Trailer Parking Lot Option would include approximately 866 trailer parking spaces.

Under the Warehouse Option, construction of the proposed building and detention basin would occur over 14 months, beginning in January 2026 and concluding by March 2027. Construction activities would primarily include grading, building construction, paving, and architectural coating. For proposed earthwork, approximately 442,000 cubic yards of cut and 446,000 cubic yards of fill are expected, resulting in 4,000 cubic yards of materials import during the grading phase.

Under the Trailer Parking Lot Option, construction of the proposed parking lot and detention basin would occur over three months, beginning in January 2026 and concluding by April 2026. Construction activities would primarily include grading, paving, and painting for the parking lot. Construction under this development option does not expect any import or export of earthwork materials.

Construction activities for both development options would occur from 7:00 a.m. to 8:00 p.m., Monday through Saturday.

CRITERIA AIR POLLUTANTS

Air quality is a general description of how levels of air pollution and other atmospheric conditions can affect public health and the environment. Under the Federal Clean Air Act (FCAA), the U.S. Environmental Protection Agency (EPA) has identified six air pollutants that are environmentally prevalent and produced by human activities to be of concern with respect to health, the environment and welfare of the public. These specific pollutants, known as criteria air pollutants, are pollutants for which the federal and state governments have established ambient air quality standards—or criteria—for outdoor concentrations to protect public health. These pollutants are common byproducts of human activities and have been documented through scientific research to cause various adverse health effect outcomes. The federal ambient concentration criteria are known as the National Ambient Air Quality Standards (NAAQS), and the California ambient concentration criteria are referred to as the California Ambient Air Quality Standards (CAAQS). The criteria air pollutants regulated at the federal jurisdiction include carbon monoxide (CO), ground-level ozone (O₃), nitrogen dioxide (NO₂), respirable particulate matter ten microns or less in diameter (PM₁₀), fine particulate matter 2.5 microns or less in diameter (PM_{2.5}), sulfur dioxide (SO₂), and lead (Pb).

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of CO.

Ozone (O₃). O₃ occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" O₃ layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" O₃ is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO_x), and sunlight to form; therefore, VOCs and NO_x are O₃ precursors. To reduce O₃ concentrations, it is necessary to control the emissions of these O₃ precursors. Significant O₃ formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O₃ concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O₃ in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O₃ (in the troposphere) can adversely affect the human respiratory system and other tissues. O₃ is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O₃. Short-term exposure (lasting for a few hours) to O₃ at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO₂). NO_x are a family of highly reactive gases that are a primary precursor to the formation of ground-level O₃ and react in the atmosphere to form acid rain. NO₂ (often used interchangeably with NO_x) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO₂ occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO₂ can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO₂ concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM₁₀). PM₁₀ refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM₁₀ arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM₁₀ scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter (PM_{2.5}). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal PM_{2.5} standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In February 2024, the EPA lowered the federal primary PM_{2.5} annual standard to 9.0 microgram per cubic meter (ug/m³) from the 12.0 ug/m³ standard set in 2012. The secondary annual standard remains at 15.0 ug/m³. States and Tribal Authorities will submit initial recommendations of areas that do not attain this standard (i.e., nonattainment areas) to EPA by February 2025, and EPA will finalize area designations by February 2026.

Sulfur Dioxide (SO₂). Sulfur dioxide (SO₂) is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with SO_x. Exposure of a few minutes to low levels of SO₂ can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O₃ to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOC is not considered a criteria pollutant; however, it is a precursor to O₃, which is a criteria pollutant. VOCs are a criteria pollutant since they are a precursor to O₃, which is a criteria pollutant. The terms VOC and ROG (see below) are used interchangeably.

Reactive/Volatile Organic Compounds/Gases (ROG, VOC, NMOG, NMOC). Similar to VOCs, ROGs are also precursors in forming O₃ and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O₃, which is a criteria pollutant. In the meantime, “ROG” is generally used by the California Air Resources Board, “VOC” is generally used by the EPA, but all four terms are interchangeable for most uses. Regionally important due to its involvement in the photochemical reaction that produces ozone. The terms ROG and VOC are used interchangeably.

VALLEY FEVER

Coccidioidomycosis, more commonly known as “Valley Fever,” is primarily a disease of the lungs caused by the spores of the *Coccidioides immitis* fungus. The spores are found in soils, become airborne when the soil is disturbed, and are subsequently inhaled into the lungs. After the fungal spores have settled in the lungs, they change into a multicellular structure called a spherule. Fungal growth in the lungs occurs as the spherule grows and bursts, releasing endospores, which then develop into more spherules.

Valley Fever symptoms occur within two to three weeks of exposure. Approximately 60 percent of Valley Fever cases are mild and display flu-like symptoms or no symptoms at all. Of those who are exposed and seek medical treatment, the most common symptoms include fatigue, cough, loss of appetite, rash, headache, and joint aches. In some cases, painful red bumps may develop on the skin. One important fact to mention is that these symptoms are not unique to Valley Fever and may be caused by other illnesses as well. Identifying and confirming this disease require specific laboratory tests such as: (1) microscopic

identification of the fungal spherules in infected tissue, sputum, or body fluid sample; (2) growing a culture of *Coccidioides immitis* from a tissue specimen, sputum, or body fluid; (3) detection of antibodies (serological tests specifically for Valley Fever) against the fungus in blood serum or other body fluids; and (4) administering the Valley Fever Skin Test (called coccidioidin or spherulin), which indicate prior exposure to the fungus. Valley Fever is not contagious, and therefore, cannot be passed on from person to person. Most of those who are infected would recover without treatment within six months and would have a life-long immunity to the fungal spores. In severe cases, especially in those patients with rapid and extensive primary illness, those who are at risk for dissemination of disease, and those who have disseminated disease, antifungal drug therapy is used. The type of medication used, and the duration of drug therapy are determined by the severity of disease and response to the therapy. The medications used include ketoconazole, itraconazole and fluconazole in chronic, mild-to-moderate disease, and amphotericin B, given intravenously or inserted into the spinal fluid, for rapidly progressive disease. Although these treatments are often helpful, evidence of disease may persist, and years of treatment may be required. The usual course of Valley Fever in healthy people is complete recovery within six months. In most cases, the body's immune response is effective, and no specific course of treatment is necessary. About five percent of cases of Valley Fever result in pneumonia (infection of the lungs), while another five percent of patients develop lung cavities after their initial infection with Valley Fever. These cavities occur most often in older adults, usually without symptoms, and about 50 percent of them disappear within two years. Occasionally, these cavities rupture, causing chest pain and difficulty breathing, and require surgical repair. Only one to two percent of those exposed who seek medical attention would develop a disease that disseminates (spreads) to other parts of the body other than the lungs.

Factors that affect the susceptibility to coccidioidal dissemination are race, sex, pregnancy, age, and immunosuppression. While there are no racial or gender differences in susceptibility to primary infection with coccidioidomycosis, differences in risk of disseminated infection do appear to exist. Men have a higher rate of dissemination than do women and several studies have shown that the rate of dissemination in African Americans and Filipinos is several times higher than in the rest of the U.S. population. Native Americans, Hispanics, and Asians may also have a higher rate of dissemination than the general population, but these population differences are not well defined.

The *Coccidioides immitis* fungal spores are often found in the soil around rodent burrows, Indian ruins, and burial grounds. The spores become airborne when the soil is disturbed by winds, construction, farming, and soil disturbing activities. This type of fungus is endemic to the southwestern United States and is common in the Antelope Valley. The City is in an area designated as suspected endemic for Valley Fever by the Center for Disease Control and Prevention (CDC).⁴ Annual morbidity reports for 2003 through 2022 from Los Angeles County Public Health (LACPH) indicate that the Los Angeles County has the reported incidence rate of approximately 15 per 100,000 persons as of 2022.⁵

EXISTING SETTING

Regional Topography

The State of California is divided geographically into 15 air basins. The City is in the Mojave Desert Air

⁴ Centers for Disease Control and Prevention, *More information about the estimated areas with blastomycosis, coccidioidomycosis (Valley fever), and histoplasmosis in the United States*, <https://www.cdc.gov/fungal/pdf/more-information-about-fungal-maps-508.pdf>, accessed October 30, 2024.

⁵ Los Angeles County Department of Public Health, Valley Fever, <http://publichealth.lacounty.gov/acd/diseases/cocci.htm>, accessed October 30, 2024.

Basin (MDAB). The MDAB includes the desert portion of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The MDAB primarily contains pollutants from other air basins, dust raised by construction, travel on unpaved roads, and paved roads with silty debris.

Air quality in the MDAB is a function of the area's natural physical characteristics (weather and topography) as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of air pollutants throughout the MDAB.

Climate

The general region lies in the semipermanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The climate consists of a semiarid environment with mild winters, warm summers, moderate temperatures, and comfortable humidity. Precipitation is limited to a few winter storms. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The average annual temperature varies little throughout the MDAB, averaging 75 degrees Fahrenheit (°F). However, with a less-pronounced oceanic influence, the eastern inland portions of the MDAB show greater variability in annual minimum and maximum temperatures. All portions of the MDAB have recorded temperatures over 100°F in recent years.

The Antelope Valley Air Quality Management District (AVAQMD) covers western portion of the MDAB. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada mountains to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. The Antelope Valley is bordered in the northwest by the Tehachapi Mountains, separated from the Sierra Nevada Mountains in the north by the Tehachapi Pass (3,800 feet elevation). The Antelope Valley is bordered in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 feet).

During the summer, the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert to indicate at least three months have maximum average temperatures over 100.4° F.⁶

The City experiences average high temperatures of up to 82°F during the month of July and August, and average low temperatures of 44°F during the month of December. Rainfall occurs most frequently in

⁶ Antelope Valley Air Quality Management District, *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, August 2016.

February with an average rainfall of 2.4 inches.⁷

Local Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The closest monitoring station to the project site with data from 2021 and 2022 is the Lancaster – Division Street Monitoring Station. For 2023 data, the closest station is the Lancaster – Fairgrounds Street Monitoring Station. The air pollutants measured at both monitoring stations include ozone (O₃), carbon monoxide (CO), particulate matter (PM₁₀), nitrogen oxide (NO₂), and fine particulates (PM_{2.5}). The air quality data monitored at the Lancaster Monitoring Stations from 2021 to 2023 are presented in Table 1, *Measured Air Quality Levels*. This table lists the monitored maximum concentrations and number of exceedances of Federal/State air quality standards for each year recorded by the monitoring station.

⁷ Weather Spark, *Climate and Average Weather Year Round in Lancaster*, https://weatherspark.com/y/1701/Average-Weather-in-Lancaster-California-United-States-Year-Round#google_vignette, accessed October 31, 2024.

**Table 1
Measured Air Quality Level**

Pollutant	Primary Standard		Year	Maximum Concentration ¹	Number of Days State/Federal Std. Exceeded
	California	Federal			
Carbon Monoxide (CO) ^{2,3} (1-Hour)	20 ppm for 1 hour	35 ppm for 1 hour	2021	1.416 ppm	0 / 0
			2022	1.380 ppm	0 / 0
			2023	*	* / *
Ozone (O ₃) ^{2,3} (1-Hour)	0.09 ppm for 1 hour	N/A	2021	0.086 ppm	0 / 0
			2022	0.098 ppm	3 / 0
			2023	0.112 ppm	1 / 0
Ozone (O ₃) ^{2,3} (8-Hour)	0.070 ppm for 8 hours	0.070 ppm for 8 hours	2021	0.079 ppm	4 / 3
			2022	0.082 ppm	36 / 33
			2023	0.088 ppm	1 / 6
Nitrogen Dioxide (NO ₂) ^{2,3}	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2021	0.046 ppm	0 / 0
			2022	0.044 ppm	0 / 0
			2023	0.035 ppm	0 / 0
Particulate Matter (PM ₁₀) ^{2,3,4,5}	50 µg/m ³ for 24 hours	150 µg/m ³ for 24 hours	2021	411.2 µg/m ³	* / 1
			2022	76.2 µg/m ³	* / 0
			2023	121.1 µg/m ³	7 / 0
Fine Particulate Matter (PM _{2.5}) ^{2,3,5}	No Separate State Standard	35 µg/m ³ for 24 hours	2021	35.7 µg/m ³	* / 1
			2022	15.1 µg/m ³	* / 0
			2023	12.4 µg/m ³	* / 0
ppm = parts per million		PM ₁₀ = particulate matter 10 microns in diameter or less			
µg/m ³ = micrograms per cubic meter		PM _{2.5} = particulate matter 2.5 microns in diameter or less			
* = Data Not Provided		N/A = Not Applicable			
Notes:					
1. Maximum concentration is measured over the same period as the California Standard.					
2. Measurements during 2021 and 2022 were taken at the Lancaster – Division Street monitoring station located at 43301 Division Street, Lancaster, CA 93535.					
3. Measurements during 2023 were taken at the Lancaster – Fairgrounds monitoring station located at 2551 W Avenue H, Lancaster, CA 93536.					
4. PM ₁₀ exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.					
5. PM ₁₀ and PM _{2.5} exceedances are derived from the number of samples exceeded, not days.					
Sources:					
California Air Resources Board, <i>ADAM Air Quality Data Statistics</i> , http://www.arb.ca.gov/adam/ , accessed October 30, 2024.					
California Air Resources Board, <i>AQMIS2: Air Quality Data</i> , https://www.arb.ca.gov/aqmis2/aqdselect.php , accessed October 30, 2024.					

Sensitive Receptors

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

The nearest sensitive receptor to the project site is the existing single-family residential use located approximately 1,650 feet to the north. Other sensitive receptors in the project vicinity of the project

include a park (Apollo Community Regional Park), located approximately 4,030 feet west of the project site.

REGULATORY SETTING

Federal

Federal Clean Air Act

The FCAA of 1970 and the FCAA Amendments of 1971 required the EPA to establish National Ambient Air Quality Standards (NAAQS), which required the EPA to adopt more stringent air quality standards or to include standards for other specific pollutants. The FCAA was amended in 1990 to address a large number of air pollutants that are known to cause or may reasonably be anticipated to cause adverse effects to human health or adverse environmental effects. A total of 188 specific pollutants and chemical groups were initially identified as hazardous air pollutants, and the list has been modified over time. The FCAA Amendments included new regulatory programs to control acid deposition and regulate the issuance of stationary source operating permits. These standards identify levels of air quality for “criteria” pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare; refer to Table 2, *National and California Ambient Air Quality Standards*.

State

California Clean Air Act

Clean Air Act permitting in California is the shared responsibility of the CARB, its 35 air pollution control agencies (districts), and EPA Region 9. Generally, CARB plays an oversight role for permitting and does not issue any pre-construction or operating permits. However, the State agency provides significant support to agencies that need permitting assistance.

California Air Resource 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, shown with the NAAQS in Table 2, 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 the CAAQS. These AQMP’s also serve as the basis for the preparation of the State Implementation Plan (SIP) for the State of California.

**Table 2
National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California ¹		Federal ²	
		Standard ³	Attainment Status ⁴	Standards ³	Attainment Status ⁴
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Nonattainment	N/A	Nonattainment
	8 Hours	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)	
Particulate Matter (PM ₁₀)	24 Hours	50 µg/m ³	Nonattainment	150 µg/m ³	Unclassified/ Attainment
	Annual Arithmetic Mean	20 µg/m ³		N/A	
Fine Particulate Matter (PM _{2.5}) ¹⁰	24 Hours	No Separate State Standard	Unclassified	35 µg/m ³	Unclassified/ Attainment
	Annual Arithmetic Mean	12 µg/m ³		9 µg/m ³	
Carbon Monoxide (CO)	8 Hours	9 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Unclassified/ Attainment
	1 Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)	
Nitrogen Dioxide (NO ₂) ⁵	Annual Arithmetic Mean	0.030 ppb (57 µg/m ³)	Attainment	0.053 ppm (100 µg/m ³)	Unclassified/ Attainment
	1 Hour	0.18 ppm (339 µg/m ³)		100 ppb	
Sulfur Dioxide (SO ₂) ⁶	Annual Arithmetic Mean	N/A	Attainment	0.030 ppm (80 µg/m ³)	Unclassified/ Attainment
	24 Hours	0.04 ppm (105 µg/m ³)		0.14 ppm (365 µg/m ³)	
	3 Hours	N/A		0.5 ppm (1300 µg/m ³)	
	1 Hour	0.25 ppm (655 µg/m ³)		75 ppb (196 µg/m ³)	
Lead (Pb) ^{7,8}	30 days Average	1.5 µg/m ³	Attainment	N/A	Unclassified/ Attainment
	Calendar Quarter	N/A		1.5 µg/m ³	
	Rolling 3-Month Average	N/A		0.15 µg/m ³	
Visibility-Reducing Particles ⁹	8 Hours	Extinction Coefficient of 0.24 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent	Unclassified	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Unclassified		
Vinyl Chloride ⁷	24 Hour	0.01 ppm (26 µg/m ³)	Unclassified		

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

- California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- The United States Environmental Protection Agency and the California Air Resources Board designate attainment or non-attainment status for different geographic areas based on their ability to meet local or national standards. Portions of the AVAQMD have been designated non-attainment for a variety of pollutants, and some of those designations have an associated classification.
- To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- On June 2, 2010, a new 1-hour SO₂ standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.
- EPA published the final rule of Particulate Matter and updated the NAAQS for PM_{2.5} Annual Average to 9 µg/m³ in 2024.

Source:

- Antelope Valley Air Quality Management District, AVAQMD Attainment Status, <https://avaqmd.ca.gov/files/e0986ab83/AVAQMD+2017+Attainment+Status+Table.pdf>, accessed November 3, 2024.
- California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀), <https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health>, accessed November 3, 2024.

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

Air Toxics Programs

Toxic air contaminants are another group of pollutants of concern in southern California. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to toxic air contaminants can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (Health and Safety Code Section 39660 et seq.) and Part 6 (Air Toxics “Hot Spots” Information and Assessment) (Health and Safety Code Section 44300 et seq.). CARB, working in conjunction with the State Office of Environmental Health Hazard Assessment, identifies toxic air contaminants. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified toxic air contaminant to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology (BACT) for toxics. The program is administered by CARB. Air quality control agencies, including the AVAQMD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB.

Regional

Southern California Association of Governments

On September 3, 2020, the Regional Council of SCAG formally adopted the *Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS)*. The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing greenhouse gases (GHGs) from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the state-mandated reductions in GHG emissions through reduced per capita VMT. Some of these tools include center-focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

The most recent RTP/SCS (Connect SoCal 2024) was approved by SCAG's Regional Council in April 2024. Connect SoCal 2024 outlines a vision for a more resilient and equitable future, with investment, policies, and strategies for achieving the region's shared goals through 2050. Connect SoCal 2024 is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gases emission reduction goals and federal Clean Air Act requirements. These are articulated in a set of Regional Strategic Investments, Regional Planning Policies, and Implementation Strategies. The Regional Planning Policies are a resource for County Transportation Commissions (CTCs) and local jurisdictions, who can refer to specific policies to demonstrate alignment with the RTP/SCS when seeking resources from State or federal programs. The Implementation Strategies articulate priorities for SCAG efforts in fulfilling or going beyond the Regional Planning Policies.

Antelope Valley Air Quality Management District

The project site is located within the MDAB, which is under the jurisdiction of the AVAQMD. The EPA designated the Western Mojave Desert Nonattainment Area (WMDONA) as nonattainment for the 2015 70 parts per billion (ppb) 8-hour ozone National Ambient Air Quality Standard (NAAQS) pursuant to the provisions of the FCAA. AVAQMD is included in the WMDONA. Based on this nonattainment status for ozone, the AVAQMD adopted the AVAQMD Federal 70 ppb *Ozone Attainment Plan* (Western Mojave Desert Nonattainment Area) (AVAQMD 70 ppb Plan) on January 17, 2023.⁸ The document sets forth a comprehensive program that would lead the area into compliance with Federal and State air quality standards. The AVAQMD 70 ppb Plan includes the latest planning assumptions regarding population, vehicle, and industrial activity and addresses all existing and forecasted ozone precursor-producing activities within the Antelope Valley through the year 2026. According to the AVAQMD 70 ppb Plan, AVAQMD would be in attainment of the 70-ppb ozone NAAQS by August 3, 2033.

Evaluation Criteria

In August 2016, the AVAQMD adopted the *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines* (AVAQMD CEQA and Federal Conformity Guidelines) to provide direction on the preferred analysis approach in preparing environmental analysis or document review.⁹ The guidelines characterize the topography and climate of the MDAB, defines cumulative impacts, and provide emission thresholds for construction and operation. The AVAQMD CEQA and Federal Conformity Guidelines establish significance thresholds for projects. Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The evaluation criteria are: (1) generates total emissions (direct and indirect) in excess of the thresholds given in AVAQMD CEQA and Federal Conformity Guidelines Table 6, *Significant Emissions Thresholds*; (2) generates a violation of any ambient air quality standard when added to the local background; (3) does not conform with the applicable attainment or maintenance plan(s); and (4) exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a

⁸ Antelope Valley Air Quality Management District, *AVAQMD Federal 70 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)*, January 17, 2023.

⁹ Antelope Valley Air Quality Management District, *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, August 2016.

cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

Air Pollutant Emissions Thresholds

Further, AVAQMD CEQA and Federal Conformity Guidelines also provides significance thresholds for both construction and operation of projects within the AVAQMD jurisdictional boundaries. If these thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project generates emissions in excess of the established mass daily emissions thresholds, as outlined in Table 3, AVAQMD Significant Emissions Thresholds, a significant air quality impact may occur, and additional analysis is warranted to fully assess the significance of impacts.

**Table 3
AVAQMD Significant Emissions Thresholds**

Criteria Pollutant	Annual Threshold (tons/year)	Daily Thresholds (pounds/day)
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO _x)	25	137
Volatile Organic Compounds (VOCs)	25	137
Oxides of Sulfur (SO _x)	25	137
Particulate Matter (PM ₁₀)	15	82
Particulate Matter (PM _{2.5})	12	65

Source: Antelope Valley Air Quality Management District, *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, Table 6, Significant Emissions Thresholds*, August 2016.

Sensitive Receptor Land Uses

According to the AVAQMD CEQA and Federal Conformity Guidelines, the following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using significance threshold criteria number (4) regarding sensitive receptors and cancer risk:

- Any industrial project within 1,000 feet of sensitive receptor land use;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet; and
- A gasoline dispensing facility within 300 feet.

Local

Lancaster General Plan 2030

The *Lancaster General Plan 2030* (General Plan) was adopted on July 14, 2009, and the horizon year for the adopted General Plan is 2030. The General Plan contains the vision, goals, objectives, policies, and specific actions for the City. The General Plan includes the following elements or plans: natural

environment, public health and safety, active living, physical mobility, municipal services and facilities, economic development and vitality and physical development. The following objectives and policies related to air quality in the Plan for the Natural Environment Chapter of the General Plan would be applicable to the project:

Plan for the Natural Environment

Objective 3.3: Preserve acceptable air quality by striving to attain and maintain national, State and local air quality standards.

Policy 3.3.1: Minimize the amount of vehicular miles traveled.

Policy 3.3.2: Facilitate the development and use of public transportation and travel modes such as bicycle riding and walking.

Policy 3.3.3: Minimize air pollutant emissions generated by new and existing development.

Policy 3.3.4: Protect sensitive uses such as homes, schools and medical facilities, from the impacts of air pollution.

Objective 14.2: Promote a roadway system which balances the need to move vehicles while protecting environmental, aesthetic, and quality of life issues.

Policy 14.2.1: Support and improve a roadway network that is sensitive to environmental issues such as, biological, land, and water resources, as well as air quality, while permitting continued development within the study area.

Lancaster Municipal Code

Chapter 12.10, Mobile Source Air Pollution Reduction

Lancaster Municipal Code (Municipal Code) Chapter 12.10, *Mobile Source Air Pollution Reduction*, supports the AVAQMD's imposition of the vehicle registration fee and to bring the City into compliance with the requirements set forth in Section 44243 of the Health and Safety Code to receive fee revenues for the purpose of implementing programs to reduce air pollution from motor vehicles.

CALIFORNIA ENVIRONMENTAL QUALITY ACT THRESHOLDS

In accordance with the *California Environmental Quality Act Guidelines* (CEQA Guidelines), project impacts are evaluated to determine whether significant adverse environmental impacts would occur. This analysis will focus on the project's potential impacts and provide mitigation measures, if required, to reduce or avoid any potentially significant impacts that are identified. According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement AQ-1);

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard (refer to Impact Statement AQ-2);
- Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statement AQ-3); and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (refer to Impact Statement AQ-4).

AVAQMD Daily and Yearly Emissions Thresholds

Under CEQA, the AVAQMD is a responsible agency on air quality within its jurisdiction or impacting its jurisdiction. Under the FCAA, the AVAQMD has adopted attainment plans for O₃. The AVAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan. The AVAQMD has adopted an attainment plan for ozone pursuant to the FCAA.

For the purposes of this air quality analysis, actions that violate Federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors, and outdoor and secondary standards designed to safeguard human welfare) are considered significant impacts. Additionally, actions that violate State standards developed by the CARB or criteria developed by the AVAQMD, including thresholds for criteria pollutants, are considered significant impacts.

AVAQMD's CEQA and Federal Conformity Guidelines also provides significance thresholds to assess the impact of project related air pollutant emissions. [Table 3](#) provides the significance thresholds set forth by the AVAQMD. A project that generates total emissions (direct and indirect) in excess of the thresholds given in [Table 3](#) is considered significant.

AVAQMD Conformity Impacts

With respect to conformity impacts, the AVAQMD CEQA and Federal Conformity Guidelines notes the following:

“A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).”

IMPACT ANALYSIS

AQ-1 WOULD THE PROJECT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN?

Level of Significance: Less Than Significant Impact.

As discussed above, a potentially significant impact to air quality would occur if the project does not conform with the applicable attainment or maintenance plan(s) pursuant to the AVAQMD CEQA and Federal Conformity Guidelines. It is noted that a project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. If a project involves zone changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled, this project would also be deemed to not exceed this threshold.

This air quality analysis would assess the project's consistency with the AVAQMD *Federal 70 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)* (AVAQMD 70 ppb Plan). 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 Federal and State air quality standards. It is important to note that even if a project is found consistent it could still have a significant impact on air quality under CEQA. Consistency with plans means that a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the Federal and State air quality standards.

According to the AVAQMD *CEQA and Federal Conformity Guidelines*, a project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plans. A project is conforming if it complies with all applicable AVAQMD rules and regulations, complies with all proposed control measures that are not adopted from applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast (i.e., General Plan).

Warehouse Option

Compliance With Applicable District Rules And Regulations

The development of the Warehouse Option would be required to comply with all AVAQMD rules and regulations to improve air quality. Specifically, adherence with AVAQMD Rule 402 would minimize any discharge of contaminants that could be detrimental or would cause a nuisance; adherence with AVAQMD Rule 403 would reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions; adherence with AVAQMD Rule 1113 would limit the quantity of VOC in architectural coatings; and adherence with AVAQMD Rule 1120 would minimize odor impacts from ROG emissions during asphalt paving activities.

Further, the development of the Warehouse Option would result in less than significant impacts regarding localized and regional air pollutants concentrations during warehouse construction and operations; refer

to Impact Statements AQ-2 and AQ-3. As such, the Warehouse Option would not delay the timely attainment of air quality standards or AVAQMD 70 ppb Plan emissions reductions goals.

Consistency With Land Use Plans And Growth Forecasts

As detailed above, the project site is designated LI with a “Specific Plan” overlay based on the General Plan. The “LI” designation on the General Plan is intended for clean, non-polluting industrial and office uses with support commercial. The project site is zoned “SP 95-01 Fox Field Industrial Corridor Specific Plan” based on the City’s Zoning Map. Based on the Specific Plan, the project site is located within focused area “Fox Field East” and designated “LI” and “MFG”. The “LI” and “MFG” land use designations in the Specific Plan are intended to support light industrial and manufacturing/distribution uses. The development of the Warehouse Option would include construction of a warehouse and a detention basin. As such, the Warehouse Option would be consistent with the existing land use designations and zoning for the site as envisioned by the General Plan, the Specific Plan, and the Zoning Map.

Per the *Lancaster Fox Field East Industrial Development Project VMT Analysis*, prepared by Fehr & Peers and dated October 30, 2024, the development of the Warehouse Option is expected to generate approximately 194 employment opportunities. As the proposed project is not a residential development, the analysis assumes there would be no direct population increase due to the proposed project. The Southern California Association of Governments (SCAG) regional growth forecasts are based on long-range development assumptions (i.e., General Plans and Specific Plans) of the relevant jurisdiction.¹⁰ Per the SCAG regional growth forecast, the City’s employment stood at 56,300 in 2016 and is expected to grow to 65,500 by 2045. The anticipated employment increase (194 jobs) would represent approximately 0.29 percent of the City’s projected employment by 2045 (65,500 jobs) and 2.11 percent of the City’s employment increase between 2016 and 2045 (9,200 jobs).

Although the project would result in direct employment growth, the warehouse-generated nominal growth would not constitute substantial unplanned growth exceeding existing local conditions or regional population projections.

Further, the Warehouse Option would be consistent with applicable General Plan policies as it would preserve acceptable air quality and promote a roadway systems network that is sensitive to environmental issues, such as air quality; refer to Table 4, *Consistency with the Lancaster General Plan 2030 – Warehouse Option*.

As the Warehouse Option would be consistent with land uses previously envisioned for the site and would not induce substantial employment growth, the Warehouse Option would be considered consistent with the growth forecasts in the AVAQMD 70 ppb Plan. In conclusion, the determination of the Warehouse Option’s consistency with the AVAQMD 70 ppb Plan is primarily concerned with the long-term influence of a project on MDAB air quality. The Warehouse Option would not result in long-term impacts on the region’s ability to meet State and federal air quality standards. In conclusion, the Warehouse Option would not conflict with the goals and policies of the AVAQMD 70 ppb Plan. Impacts would be less than significant in this regard.

¹⁰ Southern California Association of Governments, *2020-2045 RTP/SCS Technical Report, Demographics and Growth Forecast*, September 3, 2020.

**Table 4
Warehouse Option Consistency with Lancaster General Plan 2030**

General Objectives and Policies	Project Consistency
Objectives: Preserve acceptable air quality by striving to attain and maintain national, State and local air quality standards.	
<u>Policy 3.3.1:</u> Minimize the amount of vehicular miles traveled.	Consistent. The Warehouse Option would minimize vehicular miles traveled (VMT) and facilitate the development and use of public transportation and alternative travel modes. By providing approximately bicycle parking spaces and installing electric vehicle (EV) charging spaces, it would support alternative transportation methods and reduce VMT. As such, the Warehouse Option would be consistent with the policy.
<u>Policy 3.3.2:</u> Facilitate the development and use of public transportation and travel modes such as bicycle riding and walking.	Consistent. As discussed, the Warehouse Option would include bicycle parking spaces, thereby promoting the use of alternative transportation methods. Additionally, the nearest bus stop (Bus Route 9) operated by the Antelope Valley Transit Authority (AVTA) is located 1.15 miles south of the project site. Therefore, the Warehouse Option aligns with the policy to support public transportation.
<u>Policy 3.3.3:</u> Minimize air pollutant emissions generated by new and existing development.	Consistent. The Warehouse Option would be required to comply with all AVAQMD rules and regulations to improve air quality. Specifically, adherence with AVAQMD Rule 402 would minimize any discharge of contaminants that could be detrimental or would cause a nuisance; adherence with AVAQMD Rule 403 would reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions; adherence with AVAQMD Rule 1113 would limit the quantity of reactive/volatile organic compounds (ROG/VOC) in architectural coatings; and adherence with AVAQMD Rule 1120 would minimize odor impacts from ROG emissions during asphalt paving activities. As detailed below in Impact Statement AQ-2, below, the Warehouse Option would not result in short- or long-term air quality impacts as emissions would not exceed the AVAQMD adopted construction or operational thresholds. As such, the Warehouse Option would be consistent with the policy.
<u>Policy 3.3.4:</u> Protect sensitive uses such as homes, schools and medical facilities, from the impacts of air pollution.	Consistent. As discussed in Impact Statement AQ-2, the Warehouse Option would not exceed the thresholds adopted by AVAQMD. Further, the project would not be in proximity to existing sensitive uses; the nearest sensitive receptor would be the existing residential use, located approximately 1,650 feet from the project site. Therefore, the Warehouse Option is not anticipated to result in adverse impacts to nearby sensitive uses.
Objectives: Promote a roadway system which balances the need to move vehicles while protecting environmental, aesthetic, and quality of life issues.	
<u>Policy 14.2.1:</u> Support and improve a roadway network that is sensitive to environmental issues such as, biological, land, and water resources, as well as air quality, while permitting continued development within the study area.	Consistent. The Warehouse Option would not exceed the thresholds established by the AVAQMD. The project site would connect to the sidewalks proposed in the planned industrial development to the west of the project site along both Avenue G and 30th Street West. As such, the Warehouse Option would be consistent with this General Plan objective and policy.
Source: City of Lancaster, <i>Lancaster General Plan 2030</i> , July 14, 2009.	

Trailer Parking Lot Option

The Trailer Parking Lot Option would provide trailer parking spaces for the planned industrial development to the west of the project site. This option would not introduce any employees or residents to the City. As detailed above, the project site is designated LI with a “Specific Plan” overlay based on the General Plan. The “LI” designation on the General Plan is intended for clean, non-polluting industrial and office uses with support commercial. The project site is zoned “SP 95-01 Fox Field Industrial Corridor Specific Plan” based on the City’s Zoning Map. Based on the Specific Plan, the project site is located within focused area “Fox Field East” and designated “LI” and “MFG”. The “LI” and “MFG” land use designations in the Specific Plan are intended to support light industrial and manufacturing/distribution uses. Since the trailer parking lot would support the planned industrial development mentioned above, it would be considered a permitted use. Therefore, the land use of the Trailer Parking Lot Option would be consistent with the Land Use Designation, Zoning Map, General Plan, and Growth Forecasts.

The construction of the Trailer Parking Lot Option would also be required to comply with all AVAQMD rules and regulations to improve air quality. The development of the Trailer Parking Lot Option would result in similar, but less, construction and operational impacts compared to the Warehouse Option; refer to Impact Statement AQ-2. Thus, a less than significant impact would occur regarding air quality plan consistency under the Trailer Parking Lot Option.

Mitigation Measures: No mitigation is required.

AQ-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 FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD?

Level of Significance: Less Than Significant Impact.

Warehouse Option

Construction

The California Emissions Estimator Model (CalEEMod) version 2022.1 was utilized to calculate the project’s construction and operational air pollutants emissions. The Warehouse Option would be constructed in a single phase. Construction activities would primarily include grading, building construction, paving, and architectural coating. The Warehouse Option would include approximately 4,000 cubic yards of soil import during grading phase. Table 5, Construction Emissions – Warehouse Option, presents the Warehouse Option’s anticipated construction emissions. The thresholds of significance recommended by the AVAQMD for construction emissions were developed for individual development projects as outlined in the AVAQMD CEQA and Federal Conformity Guidelines.

**Table 5
Construction Emissions – Warehouse Option**

Construction Year	Pollutant (pounds/day) ^{1,2}						Pollutant (tons/year) ^{1,2}					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Year 1 (2026)	128	44.6	66.9	0.13	11.70	4.45	2.02	2.50	5.27	0.01	0.84	0.26
Year 2 (2027)	2.77	15.7	36.5	0.06	6.45	1.82	0.06	0.34	0.84	<0.01	0.14	0.04
Maximum Daily / Yearly Emissions	128	44.6	66.9	0.13	11.70	4.45	2.02	2.50	5.27	0.01	0.84	0.26
<i>AVAQMD Significance Threshold ³</i>	137	137	548	137	82	65	25	25	100	25	15	12
Is Threshold Exceeded?	No	No	No	No	No	No	No	No	No	No	No	No
Notes: AVAQMD = Antelope Valley Air Quality Management District; CO = carbon monoxide; NO _x = nitrogen oxide; PM _{2.5} = particulate matter no more than 2.5 microns in diameter; PM ₁₀ = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases. 1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model. The maximum daily emissions (from either summer or winter conditions) are presented. 2. The reduction/credits for construction emissions applied in CalEEMod are based on the application of dust control techniques as required by AVAQMD Rule 403. The dust control techniques include the following: water exposed surfaces three times daily; and limit speeds on unpaved roads to 25 miles per hour. 3. Threshold source: Antelope Valley Air Quality Management District, <i>California Environmental Quality Act (CEQA) and Federal Conformity Guidelines Table 6, Significant Emissions Thresholds</i> , August 2016. In developing these thresholds, AVAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable. Source: Refer to Appendix A, <i>Air Quality Emissions Data</i> for CalEEMod outputs.												

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that 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 area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from demolition, grading and construction is expected to be short-term and would cease upon project completion. Most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM₁₀ generated as a part of fugitive dust emissions. PM₁₀ poses a serious health hazard alone or in combination with other pollutants. PM_{2.5} is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. PM_{2.5} is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_x and SO_x combining with ammonia. PM_{2.5} components from material in the Earth's crust, such as dust, are also present, with the amount varying in different locations.

The construction of Warehouse Option would implement all required dust control techniques per AVAQMD Rule 403 (i.e., at least three times of watering exposed surfaces per day and limit speeds on unpaved roads to 25 miles per hour) to reduce PM₁₀ and PM_{2.5} emissions. As depicted in [Table 5](#), total fugitive dust (PM₁₀ and PM_{2.5}) emissions during construction would not exceed applicable AVAQMD thresholds. Thus, impacts in this regard would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the project site, emissions produced on-site as equipment is used, and emissions from trucks transporting materials to/from the site. As presented in [Table 5](#), criteria pollutant emissions associated with the use of construction equipment and worker vehicle exhaust would not exceed the applicable AVAQMD thresholds. Therefore, impacts in this regard would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O₃ precursors. The ROG emissions associated with paving and architectural coating have been quantified with the CalEEMod model. As required, all architectural coatings for the proposed structure would comply with AVAQMD Rule 1113. Rule 1113 provides specifications on painting practices as well as regulates the ROG content of paint. CalEEMod version 2022.1 has incorporated AVAQMD Rule 1113 within modeling; as such, no additional reduction/credits for construction emissions per AVAQMD Rule 1113 were applied in the modeling for the Warehouse Option. Therefore, impacts in this regard would be less than significant.

Total Construction Emissions

In accordance with the AVAQMD Guidelines, CalEEMod was utilized to model construction emissions for ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. As indicated in Table 5, criteria pollutant emissions during construction of the proposed project would not exceed the AVAQMD significance thresholds. Thus, total construction related air emissions would be less than significant.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are human health hazards when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, serpentinite and ultramafic rocks are not known to occur within the project area.¹¹ Thus, there would be no impact in this regard.

Operations

Long-term air quality impacts typically consist of mobile source emissions generated from project-related traffic (i.e., motor vehicle use by employees, deliveries travelling to and from the site), and emissions from area and energy sources. Emissions associated with each of these sources were calculated and are discussed below. Operational emissions generated by the Warehouse Option are detailed in Table 6, *Maximum Operational Emissions – Warehouse Option*.

¹¹ California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000, https://ww3.arb.ca.gov/toxics/asbestos/ofr_2000-019.pdf, accessed November 1, 2024.

Table 6
Maximum Operational Emissions – Warehouse Option

Source	Pollutant (pounds/day) ^{1,3}						Pollutant (tons/year) ¹					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Maximum Operational Emissions												
Mobile	6.64	13.30	62.30	0.19	13.70	3.65	1.05	2.47	9.46	0.03	2.48	0.66
Area	17.30	0.32	38.40	<0.01	0.07	0.05	2.58	0.03	3.45	<0.01	0.01	<0.01
Energy ²	0.15	2.64	2.22	0.02	0.20	0.20	0.03	0.48	0.40	<0.01	0.04	0.04
Total Emissions ³	24.09	16.26	102.92	0.21	13.90	3.90	3.66	2.98	13.31	0.04	2.53	0.70
AVAQMD Significance Threshold ⁴	137	137	548	137	82	65	25	25	100	25	15	12
Is Threshold Exceeded?	No	No	No	No	No	No	No	No	No	No	No	No
AVAQMD = Antelope Valley Air Quality Management District; CO = carbon monoxide; NO _x = nitrogen oxide; PM _{2.5} = particulate matter no more than 2.5 microns in diameter; PM ₁₀ = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases.												
Notes:												
1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model. The maximum daily emissions (from either summer or winter conditions) are presented.												
2. Criteria air pollutant emissions from electricity use were not quantified since criteria pollutants emissions occur at the site of the power plant, which is off-site.												
3. Totals may be off due to rounding.												
4. Threshold Source: Antelope Valley Air Quality Management District, <i>California Environmental Quality Act (CEQA) and Federal Conformity Guidelines Table 6, Significant Emissions Thresholds</i> , August 2016. In developing these thresholds, AVAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.												
Source: Refer to Appendix A, Air Quality Emissions Data for CalEEMod outputs.												

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_x, SO_x, PM₁₀, and PM_{2.5} are all pollutants of regional concern (NO_x and ROG react with sunlight to form O₃ [photochemical smog], and wind currents readily transport SO_x, PM₁₀, and PM_{2.5}). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod. According to the *Lancaster Fox Field Commerce Center East Project Local Traffic Analysis Scoping Assessment* (Traffic Analysis Scoping Assessment), prepared by Fehr & Peers, dated October 25, 2024, the proposed warehouse would generate approximately 714 total daily trips. The operational analysis utilizes the total daily trips, which does not account for pass-by trips, to provide a worst-case scenario. In addition, since the Warehouse Option would include warehouse uses, it is expected to attract heavy-duty vehicle traffic, mainly in the form of large multi-axle trucks. The fleet mix for the proposed warehouse is based on the CalEEMod default and the Traffic Analysis Scoping Assessment. The project’s mobile source emissions would not exceed the established thresholds; refer to [Table 6](#).

Area Source Emissions

Area source emissions would be generated from consumer products, architectural coatings, and landscaping. The Warehouse Option's criteria pollutant emissions from area sources would not exceed the established thresholds; refer to Table 6.

Energy Source Emissions

The primary use of electricity and natural gas by the Warehouse Option would be for space heating and cooling, water heating, ventilation, lighting, appliances, landscaping equipment, and electronics. Criteria air pollutant emissions from electricity use were not quantified since criteria pollutants emissions occur at the site of the power plant, which is off-site. The Warehouse Option would not generate criteria pollutant emissions from energy source exceeding established thresholds, refer to Table 6.

Total Operation Emissions

As shown in Table 6, both daily and annual total operational emissions for the Warehouse Option would not exceed established AVAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Cumulative Short-Term Construction Impacts

The thresholds of significance recommended by the AVAQMD for construction emissions were developed for individual development projects as outlined in the AVAQMD CEQA and Federal Conformity Guidelines. In developing these thresholds, AVAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

As discussed above, the construction emissions of the Warehouse Option would be below the established thresholds and would result in less than significant air quality impacts. Thus, it can be reasonably inferred that the project's construction emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants (i.e., O₃) in the MDAB. A less than significant impact would occur in this regard.

Cumulative Long-Term Operational Impacts

The thresholds of significance recommended by the AVAQMD for construction emissions were developed for individual development projects. In developing these thresholds, AVAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

The Warehouse Option's operational emissions fall below these thresholds, resulting in less than significant air quality impacts. Consequently, the project's emissions would not significantly contribute to the air quality impact for nonattainment criteria pollutants (e.g., O₃) in the MDAB. Additionally, long-term operational emissions from both options would not significantly impact air quality. Compliance with AVAQMD rules and regulations would mitigate potential cumulative impacts. As emission reduction technologies and strategies evolve, the Warehouse Option would not cause a significant increase in nonattainment criteria pollutants (e.g., O₃) in the MDAB. Therefore, no significant cumulative operational impacts are expected from the option's implementation.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O₃ precursors, VOCs and NO_x, affect air quality on a regional scale. Health effects related to O₃ are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants during construction would have negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the South Coast Air Quality Management District (SCAQMD), the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form.¹² Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD), SJVAPCD 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.¹³

The SCAQMD acknowledges that health effects quantification from O₃, as an example, is correlated with the increases in ambient level of O₃ in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient O₃ levels over the entire region. The SCAQMD further states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O₃ levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O₃-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations.

Similarly, attempt in quantifying O₃-related health impacts caused by NO_x or VOC emissions from relatively small projects (i.e., the Warehouse Option) would be highly speculative. Nonetheless, the Warehouse Option would not exceed AVAQMD established thresholds for construction and operational air emissions. Further, the nearest sensitive use is located more than 1,000 feet away. As such, the Warehouse Option is not anticipated to expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1; refer to Impact Statement AQ-3 below for further discussion. Consequently, air quality health impacts resulting from the Warehouse Option are anticipated to be less than significant.

¹² South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, April 3, 2015.

¹³ San Joaquin Valley Air Pollution Control District, *Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, April 13, 2015.

Trailer Parking Lot Option

Construction

Table 7, *Construction Emissions – Trailer Parking Lot Option*, presents the anticipated construction source emissions for the Trailer Parking Lot Option. As indicated, the construction emissions from the Trailer Parking Lot Option would not exceed regional thresholds of significance established by the AVAQMD. As such, the impacts would be less than significant.

**Table 7
Construction Emissions – Trailer Parking Lot Option**

Construction Year	Pollutant (pounds/day) ^{1,2}						Pollutant (tons/year) ^{1,2}					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Maximum Daily / Yearly Emissions	22.10	35.40	40.80	0.08	4.31	2.40	0.28	0.67	0.75	<0.01	0.09	0.05
<i>AVAQMD Significance Threshold³</i>	137	137	548	137	82	65	25	25	100	25	15	12
Is Threshold Exceeded?	No	No	No	No	No	No	No	No	No	No	No	No
Notes: AVAQMD = Antelope Valley Air Quality Management District; CO = carbon monoxide; NO _x = nitrogen oxide; PM _{2.5} = particulate matter no more than 2.5 microns in diameter; PM ₁₀ = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases. 1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model. The maximum daily emissions (from either summer or winter conditions) are presented. 2. The reduction/credits for construction emissions applied in CalEEMod are based on the application of dust control techniques as required by AVAQMD Rule 403. The dust control techniques include the following: water exposed surfaces three times daily; and limit speeds on unpaved roads to 25 miles per hour. 3. Threshold source: Antelope Valley Air Quality Management District, <i>California Environmental Quality Act (CEQA) and Federal Conformity Guidelines Table 6, Significant Emissions Thresholds</i> , August 2016. In developing these thresholds, AVAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable. Source: Refer to Appendix A, Air Quality Emissions Data for CalEEMod outputs.												

Operation

Table 8, *Operational Emissions – Trailer Parking Lot Option*, presents the Trailer Parking Option's anticipated operational source emissions. As the trailer parking lot would serve the planned industrial development to the west of the project site, it would not generate additional daily trips. Further, the trailer parking lot would not consume energy. As indicated below, the operational emissions from the Trailer Parking Option would not exceed regional thresholds of significance established by AVAQMD. Therefore, impacts in this regard would be less than significant.

**Table 8
Maximum Operational Emissions – Trailer Parking Lot Option**

Source	Pollutant (pounds/day) ^{1,3}						Pollutant (tons/year) ¹					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Maximum Operational Emissions												
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Area	5.53	0.27	31.9	<0.01	0.06	0.04	0.53	0.02	2.87	<0.01	0.01	<0.01
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions ³	5.53	0.27	31.9	<0.01	0.06	0.04	0.53	0.02	2.87	<0.01	0.01	<0.01
AVAQMD Significance Threshold ⁴	137	137	548	137	82	65	25	25	100	25	15	12
Is Threshold Exceeded?	No	No	No	No	No	No	No	No	No	No	No	No
AVAQMD = Antelope Valley Air Quality Management District; CO = carbon monoxide; NO _x = nitrogen oxide; PM _{2.5} = particulate matter no more than 2.5 microns in diameter; PM ₁₀ = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases.												
Notes:												
5. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model. The maximum daily emissions (from either summer or winter conditions) are presented.												
6. Criteria air pollutant emissions from electricity use were not quantified since criteria pollutants emissions occur at the site of the power plant, which is off-site.												
7. Totals may be off due to rounding.												
8. Threshold Source: Antelope Valley Air Quality Management District, <i>California Environmental Quality Act (CEQA) and Federal Conformity Guidelines Table 6, Significant Emissions Thresholds</i> , August 2016. In developing these thresholds, AVAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.												
Source: Refer to Appendix A, Air Quality Emissions Data for CalEEMod outputs.												

Cumulative Short-Term Construction Impacts

As discussed above, the construction emissions of the Trailer Parking Lot Option would be below the established thresholds and would result in less than significant air quality impacts. Thus, it can be reasonably inferred that the project’s construction emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants (i.e., O₃) in the MDAB. A less than significant impact would occur in this regard.

Cumulative Long-Term Operational Impacts

The Trailer Parking Lot Option’s emissions fall below operational thresholds, resulting in less than significant air quality impacts. Consequently, the project’s emissions would not significantly contribute to the air quality impact for nonattainment criteria pollutants (e.g., O₃) in the MDAB. Compliance with AVAQMD rules and regulations would mitigate potential cumulative impacts. As emission reduction technologies and strategies evolve, the Trailer Parking Lot Option would not cause a significant increase in nonattainment criteria pollutants (e.g., O₃) in the MDAB. Therefore, no significant cumulative operational impacts are expected from the project’s implementation.

Air Quality Health Impacts

The Trailer Parking Lot Option would not exceed AVAQMD established thresholds for construction and operational air emissions. Further, the nearest sensitive use is located more than 1,000 feet away. As such, the Trailer Parking Lot Option is not anticipated to expose sensitive receptors to substantial pollutant

concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1; refer to Impact Statement AQ-3 below for further discussion. Consequently, air quality health impacts resulting from the Trailer Parking Lot Option are anticipated to be less than significant.

Mitigation Measures: No mitigation is required.

AQ-3 WOULD THE PROJECT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS?

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. Residences, schools, daycare centers, playgrounds, medical facilities, among others, are considered sensitive receptor land uses by the AVAQMD.

According to the AVAQMD CEQA and Federal Conformity Guidelines, the following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using significance threshold criteria number (4) regarding sensitive receptors and cancer risk:

- Any industrial project within 1,000 feet of sensitive receptor land use;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet; and
- A gasoline dispensing facility within 300 feet.

Warehouse Option

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The MDAB is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. Nationwide estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions. CO emissions have continued to decline since this time. The MDAB was re-designated as attainment and is no longer addressed in the AVAQMD's AQMP. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

Localized concentrations of CO are typically associated with the idling of vehicles, particularly in highly congested areas. For this reason, the areas of primary concern are congested roadway intersections that experience high levels of vehicle traffic with degraded levels of service (LOS). Regarding potential increases in CO concentrations that could potentially exceed applicable ambient air quality standards, signalized intersections that are projected to operate at an unacceptable LOS E or F are of particular concern.

A detailed CO analysis was conducted in the Federal Attainment Plan for Carbon Monoxide (CO Plan) for the SCAQMD's 2003 Air Quality Management Plan. The locations selected for microscale modeling in the CO Plan include the worst-case intersections (those with heavy traffic volumes) in the South Coast Air Basin, and these intersections would likely experience the highest CO concentrations. Of these locations, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles experienced the highest CO concentration (4.6 parts per million [ppm]), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily trip (ADT) of approximately 100,000 vehicles per day. The same modeling result would apply to AVAQMD as the localized concentrations of CO are typically associated with idling vehicles, and AVAQMD usually experiences fewer vehicle trips than SCAQMD.

As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection (100,000 vehicle trips per day), it can be reasonably inferred that CO hotspots would not be experienced at any intersections with lower volume of traffic. As discussed above, the project site is located within the northeastern corner of the intersection of Avenue G and 30th Street. The closest roadway segment with available data is SR-14 (CA-14). According to Caltrans, CA-14 has a southbound Annual Average Daily Traffic (AADT) of 39,500 and a northbound AADT of 39,000.¹⁴ As such, it is acknowledged that the Warehouse Option would generate approximately 714 total daily trips, per Traffic Analysis Scoping Assessment, which is significantly lower than ADT at the Wilshire Boulevard/Veteran Avenue intersection and the existing project vicinity. As such, it is unlikely that the Warehouse Option would contribute to a significant increase in CO concentrations that could potentially exceed applicable ambient air quality standards within project vicinity. Impacts would be less than significant in this regard.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) (also referred to as hazardous air pollutants [HAPs]), are pollutants that result in an increase in mortality, a serious illness, or pose a present or potential hazard to human health. Health effects of TACs may include cancer, birth defects, and immune system and neurological damage.

Project construction may result in temporary increases in emissions of diesel particulate matter (DPM) associated with the use of off-road diesel equipment. Health-related risks associated with diesel-exhaust emissions are primarily associated with long-term exposure and associated risk of contracting cancer. As such, the calculation of cancer risk associated with exposure of to TACs are typically calculated based on a long-term (e.g., 70-year) period of exposure. The use of diesel-powered construction equipment, however, would be temporary and episodic and would occur over a relatively large area. As such, exposure to construction generated DPM would not be anticipated to exceed applicable thresholds (i.e., incremental increase in cancer risk of 1 in one million) during construction.

¹⁴ California Department of Transportation, *Traffic Census Program*, <https://dot.ca.gov/programs/traffic-operations/census>, accessed November 11, 2024.

The Warehouse Option proposes the construction of a warehouse; as such, the Warehouse Option shall be considered a distribution center as a conservative analysis. The nearest sensitive receptor to the project site is the existing single-family residential use located approximately 1,650 feet to the north of the project site. According to the AVAQMD CEQA and Federal Conformity Guidelines, as the project site is not located with 1,000 feet of any sensitive receptors, the Warehouse Option is not anticipated to expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1. Furthermore, per Traffic Analysis Scoping Assessment, the Warehouse Option is anticipated to generate approximately 714 total daily trips, which includes 143 truck trips. Trucks could generate DPM emissions. As such, the amount of TACs may be significant near the project site. However, as 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), the Warehouse Option is not anticipated to result in significant impacts in this regard as the project site is located approximately 1,650 feet from the nearest sensitive receptor. As such, operation of the Warehouse Option is not anticipated to result in significant exposure to TAC and impacts in this regard would be less than significant.

Valley Fever

As discussed under “Valley Fever” above, the City is in an area designated as suspected endemic for Valley Fever by the LACPH, with a reported incidence rate of approximately 15 per 100,000 persons for the County as of 2022.

There is the potential that *Coccidioides* spores could be stirred up during excavation, grading, and earth-moving activities, exposing construction workers and nearby sensitive receptors to these spores and thereby increasing the potential of contracting Valley Fever. The Warehouse Option would be required to comply with AVAQMD Rules 401 and 403 emissions during construction. With adherence to these rules, dust from potential future construction activities would be limited, preventing the exposure of nearby sensitive receptors to the Valley Fever fungus. Additionally, the construction of the Warehouse Option would be required to comply with Mitigation Measure AQ-1, which mandates that the project Applicant develop a Valley Fever Training Handout and provide training for all construction personnel before beginning ground-disturbing work. Mitigation Measure AQ-1 also requires the project Applicant to prepare a Valley Fever Dust Management Plan in consultation with the LACPH to minimize exposure to potential *Coccidioides* spores during construction. Furthermore, the project site is approximately 1,650 feet from the nearest sensitive receptor. With compliance with AVAQMD rules and the implementation of Mitigation Measure AQ-1, impacts in this regard would be reduced to less than significant levels.

Trailer Parking Lot Option

Carbon Monoxide Hotspots

The Trailer Parking Lot Option would not generate trips as it would serve the planned industrial development to the west of the project site. As such, it is unlikely that the Trailer Parking Lot Option would contribute to a significant increase in CO concentrations that could potentially exceed applicable ambient air quality standards within project vicinity. Impacts would be less than significant in this regard.

Toxic Air Contaminants

The Trailer Parking Lot Option would propose to construct a parking lot serving the planned industrial development to the west of the project site. Project construction may result in temporary increases in emissions of DPM associated with the use of off-road diesel equipment. Health-related risks associated with diesel-exhaust emissions are primarily associated with long-term exposure and associated risk of contracting cancer. The Trailer Parking Lot Option would have less intensive construction than the Warehouse Option. Furthermore, the use of diesel-powered construction equipment would be temporary and episodic and would occur over a relatively large area. As such, exposure to construction generated DPM would not be anticipated to exceed applicable thresholds during construction. The Trailer Parking Lot Option would not generate daily trips as it would serve as a parking lot to the planned industrial development to the west of the project site. Further, as 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), the Trailer Parking Lot Option is not anticipated to result in significant impacts in this regard as the project site is located approximately 1,650 feet from the nearest sensitive receptor. As such, construction operation of the Trailer Parking Lot is not anticipated to result in significant exposure to TAC and impacts in this regard would be less than significant.

Valley Fever

Construction of the Trailer Parking Lot Option would also be required to comply with AVAQMD Rules 401 and 403. Adhering to these rules, dust from potential future construction activities would be limited, preventing exposure of nearby sensitive receptors to the Valley Fever fungus. Additionally, construction would need to comply with Mitigation Measure AQ-1, which requires the project Applicant to develop a Valley Fever Training Handout and provide training to all construction personnel before beginning ground-disturbing work. The applicant must also prepare a Valley Fever Dust Management Plan in consultation with the LACPH to minimize exposure to potential *Coccidioides* spores during construction. Furthermore, the project site is approximately 1,650 feet from the nearest sensitive receptor. With adherence to AVAQMD rules and the implementation of Mitigation Measure AQ-1, impacts in this regard would be reduced to less than significant levels.

Mitigation Measures: The following mitigation measure would be required:

- AQ-1 Prior to ground disturbance activities, the project Applicant shall provide evidence to the City of Lancaster Development Services Director that the project Applicant and/or construction manager has developed a “Valley Fever Training Handout”, training, and schedule of sessions for education to be provided to all construction personnel. All evidence of the training session materials, handout(s) and schedule shall be submitted to the Development Services Director within 24 hours of the first training session. Multiple training sessions may be conducted if different work crews will come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the Development Services Director regarding the “Valley Fever Training Handout” and session(s) shall include the following:
- A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.

- Distribution of a written flier or brochure that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever.
- Training on methods that may help prevent Valley Fever infection.
- A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Wear respirators as required; the equipment shall be readily available and shall be provided to employees for use during work. Proof that the demonstration is included in the training shall be submitted to the City. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs.

The project Applicant also shall consult with the Los Angeles County Department of Public Health (DPH) to develop a Valley Fever Dust Management Plan that addresses the potential presence of the *Coccidioides* spore and mitigates for the potential for *Coccidioidomycosis* (Valley Fever). Prior to issuance of permits, the project Applicant shall submit the Valley Fever Dust Management Plan to the DPH for review and comment. The plan shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate safety procedures that shall be implemented, as needed, to minimize personnel and public exposure to potential *Coccidioides* spores. Measures in the Plan shall include the following:

- Provide HEP-filters for heavy equipment equipped with factory enclosed cabs capable of accepting the filters. Cause contractors utilizing applicable heavy equipment to furnish proof of worker training on proper use of applicable heavy equipment cabs, such as turning on air conditioning prior to using the equipment.
- Provide communication methods, such as two-way radios, for use in enclosed cabs.
- Require National Institute for Occupational Safety and Health (NIOSH)-approved half-face respirators equipped with minimum N-95 protection factor for use during worker collocation with surface disturbance activities, as required per the hazard assessment process.
- Cause employees to be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program in accordance with the applicable California Division of Occupational Safety and Health (Cal/OSHA) Respiratory Protection Standard (8 CCR 5144).
- Provide separate, clean eating areas with hand-washing facilities.
- Install equipment inspection stations at each construction equipment access/egress point. Examine construction vehicles and equipment for excess soil material and clean, as necessary, before equipment is moved off-site.
- Train workers to recognize the symptoms of Valley Fever, and to promptly report suspected symptoms of work-related Valley Fever to a supervisor.
- Work with a medical professional to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever.
- Work with a medical professional, in consultation with the DPH, to develop an educational handout for on-site workers and include the following information on Valley Fever: what are the potential sources/ causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for exposure is available. Prior to construction permit

issuance, this handout shall have been created by the project operator and reviewed by the project operator and reviewed by the Development Services Director.

- When possible, position workers upwind or crosswind when digging a trench or performing other soil-disturbing tasks.
- Prohibit smoking at the worksite outside of designated smoking areas; designated smoking areas will be equipped with handwashing facilities.
- Post warnings on-site and consider limiting access to visitors, especially those without adequate training and respiratory protection.
- Audit and enforce compliance with relevant Cal/OSHA health and safety standards on the job site.

AQ-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.

Warehouse Option

Construction

Construction activities associated with the Warehouse Option may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the Warehouse Option would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would reduce detectable odors from heavy-duty equipment exhaust. The Warehouse Option would also comply with AVAQMD Rule 1113, which would minimize odor impacts from ROG emissions during architectural coating. The Warehouse Option adherence with AVAQMD Rule 1120 would minimize odor impacts from ROG emissions during asphalt paving activities. As such, the Warehouse Option would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and less than significant impacts would occur in this regard.

Operations

Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Warehouse Option would propose warehouse building, which would not involve land uses typically associated with odor complaints. In relation to truck operations, the Warehouse Option would be required to comply with the California Code of Regulations, Title 13, Sections 2485(C)(1) which limits the idling time of trucks to no more than five minutes and would further minimize emissions and possible odors. As discussed above, the Warehouse Option adherence with AVAQMD Rule 402 would minimize any discharge of contaminants that could be detrimental or would cause a nuisance. As such, less than significant impacts would occur in this regard.

Trailer Parking Lot Option

Construction

Construction activities associated with the Trailer Parking Lot Option may generate detectable odors from heavy-duty equipment exhaust and painting. However, these construction-related odors would be short-term and cease upon project completion. Additionally, the Trailer Parking Lot Option would need to comply with the California Code of Regulations, Title 13, *Sections 2449(d)(3) and 2485*, which minimize the idling time of construction equipment by either shutting it off when not in use or reducing the idling time to no more than five minutes. This compliance would help reduce detectable odors from heavy-duty equipment exhaust. Furthermore, the Trailer Parking Lot Option would comply with AVAQMD Rule 1113, minimizing odor impacts from ROG emissions during architectural coating, and AVAQMD Rule 1120, minimizing odor impacts from ROG emissions during asphalt paving activities. As such, the Trailer Parking Lot Option would not result in emissions (such as those leading to odors) that would adversely affect a substantial number of people, leading to less than significant impacts in this regard.

Operations

Land uses typically associated with odor complaints include agricultural operations, wastewater treatment plants, food processing facilities, chemical plants, composting sites, refineries, landfills, dairies, and fiberglass molding operations. The Trailer Parking Lot Option would serve as a parking lot for the planned industrial development to the west of the project site and would therefore not involve any of these odor-prone uses. Further, this option would not generate any trips during operation. Additionally, as previously mentioned, adherence to AVAQMD Rule 402 would minimize any discharge of contaminants that could be harmful or create a nuisance. Consequently, the Trailer Parking Lot Option is expected to have less than significant impacts regarding odors.

Mitigation Measures: No mitigation is required.

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Appendix A
Air Quality Emissions Data