

### 5.3 AIR QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the Menifee General Plan (proposed project) to impact air quality in a local and regional context. The analysis in this section is based on land uses associated with the General Plan and vehicle miles traveled (VMT) provided by Urban Crossroads for the proposed project (see Appendix I). The air quality model output sheets are included in Appendix D of this DEIR.

#### 5.3.1 Environmental Setting

##### South Coast Air Basin

The project site lies within the South Coast Air Basin (SoCAB), which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. 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. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (SCAQMD 2005).

##### Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site is the Sun City Monitoring Station (ID 048655). The average low is reported at 34.5F in December while the average high is 98.0°F in August (WRCC 2013).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages 11.22 inches per year in the project area (WRCC 2013).

##### Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 2005).

##### Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions,



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

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

#### **Inversions**

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the “mixing height.” The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (SCAQMD 2005).

#### **Air Pollutants of Concern**

##### **Criteria Air Pollutants**

Pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Pb) are primary air pollutants. Of these, CO, SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO<sub>x</sub>) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O<sub>3</sub>) and NO<sub>2</sub> are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

**Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2013a).

**Volatile Organic Compounds (VOC)** are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to forms of secondary pollutants such as ozone (SCAQMD 2005). There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of O<sub>3</sub>, the South Coast Air Quality Management District (SCAQMD) has established a significance threshold for this pollutant (SCAQMD 2005).

**Nitrogen Oxides (NO<sub>x</sub>)** are a byproduct of fuel combustion and contribute to the formation of ground-level O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO<sub>2</sub> produced by combustion is NO. However, NO reacts with oxygen to form NO<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub> commonly called NO<sub>x</sub>. NO<sub>2</sub> acts as an acute irritant and is more injurious than NO in equal concentrations. NO<sub>2</sub> absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO<sub>2</sub> exposure concentrations near roadways are of particular concern for susceptible individuals, including people with asthma asthmatics, children, and the elderly. Current scientific evidence links short-term NO<sub>2</sub> exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma (asthmatics). Also, studies show a connection between breathing elevated short-term NO<sub>2</sub> concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (SCAQMD 2005, USEPA 2012a). The SoCAB is designated an attainment area for NO<sub>2</sub> under the National AAQS and nonattainment under the California AAQS (CARB 2013a)

**Sulfur Dioxide (SO<sub>2</sub>)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO<sub>2</sub> (SCAQMD 2005). When sulfur dioxide forms sulfates (SO<sub>4</sub>) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO<sub>x</sub>). Thus, SO<sub>2</sub> is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO<sub>2</sub> may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO<sub>2</sub>, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly important for asthmatics at elevated ventilation rates (e.g., while exercising or playing.) At lower concentrations and when combined with particulates, SO<sub>2</sub> may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk populations including children, the elderly, and asthmatics (SCAQMD 2005). The SoCAB is designated attainment under the California and National AAQS (CARB 2013a).



**Suspended Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>)** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM<sub>10</sub>, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or PM<sub>2.5</sub>, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM<sub>10</sub> and PM<sub>2.5</sub> may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. EPA scientific review concluded that PM<sub>2.5</sub>, which penetrates deeply into the lungs, is more likely than PM<sub>10</sub> to contribute to health effects and at concentrations that extend well below those allowed by the current PM<sub>10</sub> standards. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing). Diesel particulate matter (DPM) is classified by the California Air Resources Board (CARB) as a carcinogen. Particulate matter can also cause environmental effects such as visibility impairment,<sup>1</sup> environmental damage,<sup>2</sup> and aesthetic damage<sup>3</sup> (SCAQMD 2005; EPA 2012a). The SoCAB is a nonattainment area for PM<sub>2.5</sub> and PM<sub>10</sub> under California and National AAQS (CARB 2013a).<sup>4</sup>

<sup>1</sup> PM<sub>2.5</sub> is the main cause of reduced visibility (haze) in parts of the United States.

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**Ozone (O<sub>3</sub>)** is commonly referred to as “smog” and is a gas that is formed when VOCs and NO<sub>x</sub>, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O<sub>3</sub> is a secondary criteria air pollutant. O<sub>3</sub> concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for the formation of this pollutant. O<sub>3</sub> poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Additionally, O<sub>3</sub> has been tied to crop damage, typically in the form of stunted growth and premature death. O<sub>3</sub> can also act as a corrosive, resulting in property damage such as the degradation of rubber products (SCAQMD 2005). The SoCAB is designated as extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2013a).

**Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from on-road motor vehicle gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions to the air today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The lead effects most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (SCAMQD 2005; EPA 2012a). However, in 2008 the EPA and CARB adopted more strict lead standards and special monitoring sites immediately downwind of lead sources recorded<sup>5</sup> very localized violations of the new state and federal standards. As a result of these localized violations, the Los Angeles County portion of the SoCAB was designated in 2010 as nonattainment under the California and National AAQS for lead (SCAQMD 2012a). Because emissions of lead are found only in projects that are permitted by SCAQMD, lead is not an air quality of concern for the proposed project.

### Toxic Air Contaminants

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.”

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<sup>2</sup> Particulate matter can be carried over long distances by wind and then settle on ground or water. The effects of this settling include: making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

<sup>3</sup> Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

<sup>4</sup> CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards during the period from 2004 to 2007. However, the EPA has not yet approved this request.

<sup>5</sup> Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 identified that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2012a).

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A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics “Hot Spot” Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being DPM.

In 1998, CARB identified DPM as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

#### *MATES III*

In 2000, SCAQMD conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for 71 percent of the air toxics risk. In 2008, SCAQMD conducted its third update to its study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in one million. The largest contributor to this risk was diesel exhaust, accounting for approximately 84 percent of the air toxics risk (SCAQMD 2008). In the vicinity of the City of Menifee, excess cancer risk is 203 to 467 in a million (SCAQMD 2008).

#### **Regulatory Framework**

AAQS have been promulgated at the local, state, and federal levels for criteria pollutants. The project area is in the SoCAB and is subject to the rules and regulations imposed by the SCAQMD as well as the California AAQS adopted by CARB and federal AAQS.



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#### Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those “sensitive receptors” most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 5.3-1, *Ambient Air Quality Standards for Criteria Pollutants*, these pollutants include O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

**Table 5.3-1  
Ambient Air Quality Standards for Criteria Pollutants**

<i>Pollutant</i>	<i>Averaging Time</i>	<i>California Standard</i>	<i>Federal Primary Standard</i>	<i>Major Pollutant Sources</i>
Ozone (O <sub>3</sub> )	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	*	0.030 ppm <sup>2</sup>	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm <sup>1</sup>	
	24 hours	0.04 ppm	0.014 ppm <sup>2</sup>	
Respirable Coarse Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	

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**Table 5.3-1  
Ambient Air Quality Standards for Criteria Pollutants**

<b>Pollutant</b>	<b>Averaging Time</b>	<b>California Standard</b>	<b>Federal Primary Standard</b>	<b>Major Pollutant Sources</b>
Respirable Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>3</sup>	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m <sup>3</sup>	
Lead (Pb)	Monthly	1.5 µg/m <sup>3</sup>	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 µg/m <sup>3</sup>	
	3-Month Average	*	0.15 µg/m <sup>3</sup>	
Sulfates (SO <sub>4</sub> )	24 hours	25 µg/m <sup>3</sup>	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo = 0.23/km visibility of 10 ≥ miles <sup>1</sup>	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H <sub>2</sub> S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2013c.

ppm: parts per million; µg/m<sup>3</sup>: micrograms per cubic meter

<sup>1</sup> When relative humidity is less than 70 percent.

<sup>2</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

<sup>3</sup> On December 14, 2012, EPA lowered the federal primary PM<sub>2.5</sub> annual standard from 15.0 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. EPA made no changes to the primary 24-hour PM<sub>2.5</sub> standard or to the secondary PM<sub>2.5</sub> standards.

\* Standard has not been established for this pollutant/duration by this entity.



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#### **Air Quality Management Planning**

SCAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the air quality management plan (AQMP) for the SoCAB. Since 1979, a number of AQMPs have been prepared.

#### *2012 AQMP*

On December 7, 2012, SCAQMD adopted the 2012 AQMP, which employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. It also addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. The 2012 AQMP builds upon the approach identified in the 2007 AQMP for attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the timeframes allowed under the federal CAA. The 2012 AQMP demonstrates attainment of federal 24-hour PM<sub>2.5</sub> standard by 2014 and the federal 8-hour ozone standard by 2023. It includes an update to the revised EPA 8-hour ozone control plan with new commitments for short-term NO<sub>x</sub> and VOC reductions. The plan also identifies emerging issues of ultrafine (PM<sub>1.0</sub>) particulate matter and near-roadway exposure, and an analysis of energy supply and demand.

#### *Lead State Implementation Plan*

In 2008 EPA designated the Los Angeles County portion of the SoCAB as nonattainment under the federal lead (Pb) classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in Vernon and in the City of Industry exceeding the new standard. The remainder of the SoCAB, outside the Los Angeles County nonattainment area, remains in attainment of the new standard. On May 24, 2012, CARB approved the State Implementation Plan (SIP) revision for the federal lead standard, which EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to EPA for approval.

#### *Nonattainment Areas*

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the SIP. Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range from marginal, moderate, and serious to severe and extreme.

Transportation conformity for nonattainment and maintenance areas is required under the federal CAA to ensure federally supported highway and transit projects conform to the SIP. The EPA approved California's SIP revisions for attainment of the 1997 8-hour O<sub>3</sub> National AAQS for the SoCAB in March 2012. Findings for the new 8-hour O<sub>3</sub> emissions budgets for the SoCAB and consistency with the recently adopted 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) were submitted to the EPA for approval.

The attainment status for the SoCAB is shown in Table 5.3-2, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*. The SoCAB is also designated in attainment of the California AAQS for sulfates. The SoCAB will have to meet the new federal 8-hour O<sub>3</sub> standard by 2023 and the federal 24-hour PM<sub>2.5</sub> standards by 2014 (with the possibility of up to a five-year extension to 2019, if needed). SCAQMD has

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recently designated the SoCAB as nonattainment for NO<sub>2</sub> (entire basin) and lead (Los Angeles County only) under the California AAQS.

**Table 5.3-2  
Attainment Status of Criteria Pollutants in the South Coast Air Basin**

<i>Pollutant</i>	<i>State</i>	<i>Federal</i>
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Severe-17 Nonattainment <sup>1</sup>
PM <sub>10</sub>	Serious Nonattainment	Nonattainment <sup>2</sup>
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO <sub>2</sub>	Nonattainment	Attainment/Maintenance
SO <sub>2</sub>	Attainment	Attainment
Lead	Nonattainment (Los Angeles County only) <sup>3</sup>	Nonattainment (Los Angeles County only) <sup>3</sup>
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2013a.

<sup>1</sup> SCAQMD may petition for Extreme Nonattainment designation.

<sup>2</sup> Annual standard revoked September 2006. CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards from 2004 to 2007. However, the EPA has not yet approved this request.

<sup>3</sup> The Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas within the SoCAB are unclassified.

### Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site and project area are best documented by measurements made by SCAQMD. The City of Menifee lies within two Source Receptor Areas (SRA): SRAs 24 (Perris Valley) and 26 (Temecula Valley). The air quality monitoring station within these SRAs closest to the project is the Perris Monitoring Station. However, this station does not monitor PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, or CO. Consequently, data was obtained from the Riverside Monitoring Station for these criteria air pollutants. Data from these stations are summarized in Table 5.3-3, *Ambient Air Quality Monitoring Summary*. The data show that the area regularly exceeds the state and federal one-hour and eight-hour O<sub>3</sub> standards and regularly exceeds the state PM<sub>10</sub> and federal PM<sub>2.5</sub> standards. The CO, SO<sub>2</sub>, and NO<sub>2</sub> standards have not been exceeded in the last five years in the project vicinity.



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**Table 5.3-3  
Ambient Air Quality Monitoring Summary**

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2007	2008	2009	2010	2011
<b>Ozone (O<sub>3</sub>)<sup>1</sup></b>					
State 1-Hour ≥ 0.09 ppm	66	65	53	42	44
State 8-hour ≥ 0.07 ppm	88	94	88	77	77
Federal 8-Hour > 0.075 ppm	73	77	67	50	54
Max. 1-Hour Conc. (ppm)	0.138	0.142	0.125	0.122	0.125
Max. 8-Hour Conc. (ppm)	0.117	0.115	0.109	0.108	0.112
<b>Carbon Monoxide (CO)<sup>2</sup></b>					
State 8-Hour > 9.0 ppm	0	0	0	0	0
Federal 8-Hour ≥ 9.0 ppm	0	0	0	0	0
Max. 8-Hour Conc. (ppm)	2.93	1.86	1.85	1.84	1.35
<b>Nitrogen Dioxide (NO<sub>2</sub>)<sup>2</sup></b>					
State 1-Hour ≥ 0.18 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.072	0.092	0.078	0.065	0.063
<b>Sulfur Dioxide (SO<sub>2</sub>)<sup>2</sup></b>					
State 1-Hour ≥ 0.04 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.004	0.003	0.003	0.005	0.001
<b>Coarse Particulates (PM<sub>10</sub>)<sup>1</sup></b>					
State 24-Hour > 50 µg/m <sup>3</sup>	25	8	6	0	2
Federal 24-Hour > 150 µg/m <sup>3</sup>	2 <sup>3</sup>	0	0	0	0
Max. 24-Hour Conc. (µg/m <sup>3</sup> )	1,212.0 <sup>3</sup>	87.0	80.0	51.0	65.0
<b>Fine Particulates (PM<sub>2.5</sub>)<sup>2</sup></b>					
Federal 24-Hour > 35 µg/m <sup>3</sup>	33	14	15	4	5
Max. 24-Hour Conc. (µg/m <sup>3</sup> )	75.6	57.6	62.0	46.5	60.8

Source: CARB 2013b.

ppm: parts per million; µg/m<sup>3</sup>: or micrograms per cubic meter.

<sup>1</sup> Data obtained from the Perris Monitoring Station.

<sup>2</sup> Data obtained from the Riverside-Rubidoux Monitoring Station

<sup>3</sup> Data includes an exceptional event (e.g., wildfire). The second highest concentration of PM<sub>10</sub> is reported at 167.0 ppm.

### Existing City of Menifee Criteria Air Pollutant Emissions Inventory

Existing land uses in the City include residential, institutional, commercial, office, agricultural, and industrial uses, identified in Table 3-1, *Existing Land Use Statistics*. In addition, the City of Menifee includes several permitted sources of air pollution that are regulated by SCAQMD and are not under the jurisdictional authority of the City of Menifee, but are included for informational purposes. Criteria air pollutant emissions generated within the City was estimated using EMFAC2011, OFFROAD2007, and data provided by the Southern California Gas Company (SoCal Gas) for natural gas use. Emissions within the City of Menifee include:

- **Transportation:** Transportation emissions were modeled using CARB's EMFAC2011. Model runs were based on VMT provided by Urban Crossroads. Fleet mix for the City of Menifee was based on segment counts conducted by Urban Crossroads.
- **Area Sources:** OFFROAD was used to estimate criteria air pollutant emissions from lawn and garden equipment use, commercial equipment use, construction equipment use, and agricultural equipment use.

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- **Energy:** Criteria air pollutants generated from natural gas consumption used for cooking and heating in the City was obtained from the Southern California Gas Company (SoCal Gas).
- **Permitted Sources:** Criteria air pollutants generated from permitted sources in the City were provided by SCAQMD.

Table 5.3-4, *City of Menifee Regional Emissions Inventory*, identifies the City's existing criteria air pollutant emissions inventory.

<b>Table 5.3-4 City of Menifee Regional Emissions Inventory</b>						
<b>Sector</b>	<b>Criteria Air Pollutant Emissions (pounds per day)</b>					
	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<b>2012 Land Uses (per Table 3-1)</b>						
Transportation <sup>1</sup>	4,061	5,302	35,400	50	696	331
Energy	36	312	165	2	25	25
Area Sources <sup>2</sup>	575	2,545	4,355	3	165	121
<b>Existing Land Uses</b>						
Permitted Sources <sup>3</sup>	25	53	21	2	23	6
<b>Existing Land Uses – with Permitted Sources</b>						
	4,697	8,213	39,941	57	909	483

Source: OFFROAD2007 (Area-Lawn and Garden, Area-Light Commercial Equipment, Area-Agricultural Equipment, and Area-Construction and Mining Equipment), Southern California Gas Company (Energy-Natural Gas Use), and EMFAC2011 (Transportation) base on vehicle miles traveled (VMT) provided by Urban Crossroads.

Note: Values may not add to 100 percent of the total due to rounding.

<sup>1</sup> Transportation: VMT per year based on a conversion of VMT x 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology (CARB 2008). Existing transportation is modeled using 2012 emission rates and therefore differs from the emission rates used in Table 5.4-9.

<sup>2</sup> Area Sources: Includes unpermitted sources: light commercial, lawn and garden, and agricultural equipment from OFFROAD2007, proportioned based on City vs. county employment, population, and agricultural data. Also includes construction emissions from OFFROAD2007 proportioned based on City vs. county acreage.

<sup>3</sup> Permitted source data is from Years 2009 and 2010.



### Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

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#### 5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.
- AQ-2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- AQ-3 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- AQ-4 Expose sensitive receptors to substantial pollutant concentrations.
- AQ-5 Create objectionable odors affecting a substantial number of people.

#### South Coast Air Quality Management District Thresholds

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's *CEQA Air Quality Handbook* and the significance thresholds on SCAQMD's website.<sup>6</sup> CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed through an analysis of localized CO impacts and localized significance thresholds (LSTs).

#### Regional Significance Thresholds

SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 5.3-5, *SCAQMD Significance Thresholds*, lists SCAQMD's regional significance thresholds.

**Table 5.3-5  
SCAQMD Significance Thresholds**

<i>Air Pollutant</i>	<i>Construction Phase</i>	<i>Operational Phase</i>
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO <sub>x</sub> )	100 lbs/day	55 lbs/day
Sulfur Oxides (SO <sub>x</sub> )	150 lbs/day	150 lbs/day
Particulates (PM <sub>10</sub> )	150 lbs/day	150 lbs/day

Source: SCAQMD 2011.

<sup>6</sup> SCAQMD's Air Quality Significance Thresholds are current as of March 2011 and can be found here: <http://www.aqmd.gov/ceqa/hdbk.html>.

**CO Hotspots**

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. Typically, for an intersection to exhibit a significant CO concentration, it would operate at level of service (LOS) E or worse without improvements (Caltrans 1997).

**Localized Significance Thresholds**

SCAQMD developed LSTs for emissions of NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> generated at the project site (offsite mobile-source emissions are not included in the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS. LST analysis is applicable for all projects of five acres and less. LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor compared to the most stringent AAQS. Thresholds are based on the California AAQS, which are the most stringent AAQS established to provide a margin of safety in the protection of the public health and welfare. They are designed to protect sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. AAQS from which the LSTs are based on are shown in Table 5.3-6, *SCAQMD Localized Significance Thresholds*.



**Table 5.3-6  
SCAQMD Localized Significance Thresholds**

<i>Air Pollutant (Relevant AAQS)</i>	<i>Concentration</i>
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO <sub>2</sub> Standard (CAAQS)	0.18 ppm
24-Hour PM <sub>10</sub> Standard – Construction (SCAQMD) <sup>1</sup>	10.4 µg/m <sup>3</sup>
24-Hour PM <sub>2.5</sub> Standard – Construction (SCAQMD) <sup>1</sup>	10.4 µg/m <sup>3</sup>
24-Hour PM <sub>10</sub> Standard – Operation (SCAQMD) <sup>1</sup>	2.5 µg/m <sup>3</sup>
24-Hour PM <sub>2.5</sub> Standard – Operation (SCAQMD) <sup>1</sup>	2.5 µg/m <sup>3</sup>

Source: SCAQMD 2011.

ppm – parts per million; µg/m<sup>3</sup> – micrograms per cubic meter

<sup>1</sup> Threshold is based on SCAQMD Rule 403. Since the SoCAB is in nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub>, the threshold is established as an “allowable change” in concentration. Therefore, background concentration is irrelevant.

**Health Risk Analysis**

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401; placed on CARB’s air toxics list pursuant to Assembly Bill 1807 (AB 1807), Air Contaminant Identification and Control Act (1983); or placed on the EPA’s National Emissions Standards for Hazardous Air Pollutants, a health risk assessment (HRA) is required by the SCAQMD. Table 5.3-7, *SCAQMD Toxic Air Contaminants Incremental Risk Thresholds*, lists the SCAQMD’s TAC incremental risk thresholds for operation

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of a project. Residential, commercial, and office uses do not use substantial quantities of TACs, and these thresholds are typically applied for new industrial projects. Although not officially adopted by SCAQMD, these thresholds are also commonly used to determine air quality land use compatibility of a project with major sources of TACs within 1,000 feet of a proposed project.

Maximum Individual Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0

Source: SCAQMD 2011.

### 5.3.3 Environmental Impacts

#### Methodology

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the General Plan. SCAQMD has published the CEQA Air Quality Handbook (Handbook) and updates on its website that are intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in environmental impact reports and was used extensively in the preparation of this analysis. This analysis uses: the natural gas (energy sector) data provided by the Southern California Gas Company (SoCal Gas), OFFROAD2007 for landscaping and other stationary and area sources, and EMFAC2011 for transportation sources. In addition, criteria air pollutant emissions generated from stationary sources in the City were compiled by SCAQMD.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

**IMPACT 5.3-1: THE GENERAL PLAN WOULD BE INCONSISTENT WITH SOUTH COAST AIR QUALITY MANGEMENT DISTRICT'S AIR QUALITY MANAGENT PLAN BECAUSE BUILDOUT OF THE LAND USE PLAN WOULD CUMULATIVELY CONTRIBUTE TO THE NONATTAINMENT DESIGNATIONS OF THE SOUTH COAST AIR BASIN AND THE AIR QUALITY MANAGEMENT PLAN DOES NOT ACCOUNT FOR EMISSIONS ASSOCIATED WITH BUILDOUT OF THE GENERAL PLAN POST YEAR 2035. [THRESHOLD AQ-1]**

**Impact Analysis:** CEQA requires that General Plans be evaluated for consistency with the AQMP. A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to clean air goals contained in the AQMP. Only new or amended general plan elements, specific plans, and major projects need to undergo a consistency review. This is because the AQMP strategy is based on projections from local general plans. Projects that are consistent with the local General Plan are considered consistent with the air quality-related regional plan. There are two key indicators of consistency:

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Indicator 1: Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or interim emission reductions in the AQMP.

Indicator 2: Whether the project would exceed the assumptions in the AQMP. The AQMP strategy is, in part, based on projections from local general plans.

#### Indicator 1

The SoCAB is designated nonattainment for O<sub>3</sub>, PM<sub>2.5</sub>, PM<sub>10</sub> and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO<sub>2</sub> under the California AAQS.<sup>7</sup> Because the proposed project involves long-term growth associated with buildout (2035 and post-2035 scenarios) of the City of Menifee, cumulative emissions generated by construction and operation of individual development projects would exceed the SCAQMD regional and localized thresholds (see Impact 5.3-2 and Impact 5.3-3). Consequently, emissions generated by development projects in addition to existing sources within the City are considered to cumulatively contribute to the nonattainment designations of the SoCAB. Buildout of the General Plan would therefore contribute to an increase in frequency or severity of air quality violations and delay attainment of the AAQS or interim emission reductions in the AQMP, and emissions generated from buildout of the General Plan would result in a significant air quality impact. The proposed project would not be consistent with the AQMP under the first indicator.

#### Indicator 2

The land use designations in the General Plan form, in part, the foundation for the emissions inventory for the SoCAB in the AQMP. The AQMP is based on projections in population, employment, and vehicle miles traveled in the SoCAB region projected by SCAG. Table 5.3-8, *Comparison of Population and Employment Forecast*, compares the population and employment generation of the General Plan compared to the existing conditions and projections based on SCAG forecasts.



**Table 5.3-8  
Comparison of Population and Employment Forecast**

<i>Scenario</i>	<i>Existing Land Uses 2012</i>	<i>Menifee 2035</i>	<i>SCAG 2035 Forecast<sup>1</sup></i>	<i>Change from Existing</i>	<i>Compared to the SCAG Forecast</i>	<i>Percent Difference (SCAG)</i>
Population	79,810	104,309	119,400	24,999	-15,091	-14%
Employment	19,548	20,544	12,600	996	7,944	39%
Service Population	99,358	124,853	132,000	25,495	-7,147	-6%
Daily VMT	5,651,000	7,101,000	NA	1,450,000	NA	NA
Per Capita Daily VMT <sup>2</sup>	57	57	NA	NA	NA	NA

VMT: Vehicle Miles Traveled

<sup>1</sup> SCAG Local Input/General Plan Growth Forecast for the 2012 RTP/SCS. <http://www.scag.ca.gov/forecast/index.htm>.

<sup>2</sup> Per capita includes population and employees and is based on the full trip length for internal trips and internal-to-external trips. People who live or work in the City of Menifee drive an average of 57 miles per day (on average approximately 20,000 miles per year) and includes all trip purposes to destinations within and outside of the City of Menifee.

<sup>7</sup> CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards during the period from 2004 to 2007. However, the EPA has not yet approved this request.

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The proposed project is the City of Menifee's first General Plan. SCAG projections for a City are typically based on the current General Plan. The 2012 AQMP includes SCAG's 2012 RTP/SCS and includes population and employment projections for the City of Menifee. Although the 2012 RTP/SCS and SCAQMD's 2012 AQMP consider growth in the City of Menifee, as shown in Table 5.3-8, the City of Menifee is projected to have less population (and housing) and more employment. It should be noted that the growth projections in SCAG's 2012 RTP/SCS and associated emissions inventory in SCAQMD's AQMP do not include the additional growth forecast in the General Plan for the post-2035 scenarios since there is no schedule for when this development would occur. Consequently, the 2012 AQMP also does not consider the additional emissions associated with the full buildout of the General Plan in the Post-2035 scenarios. Once the General Plan is adopted, SCAG will incorporate the revised growth projections associated with the land uses identified in the City of Menifee General Plan in their regional planning projections and the General Plan would be consistent with the future update of the AQMP. However, since full buildout associated with the General Plan is not currently included in the emissions inventory for the SoCAB, impacts associated with the second indicator are also considered potentially significant.

#### Summary

As described above, the proposed project would not be consistent with the AQMP because air pollutant emissions associated with buildout of the City of Menifee would cumulatively contribute to the nonattainment designations in the SoCAB. Furthermore, additional control measures to attain AAQS for growth beyond 2035 associated with buildout of the General Plan is not included in the current regional emissions inventory for the SoCAB. Therefore, the proposed project would be considered inconsistent with the AQMP, resulting in a significant impact in this regard.

Impacts would be the same under the Expanded EDC Scenario.

**IMPACT 5.3-2: CONSTRUCTION ACTIVITIES ASSOCIATED WITH FUTURE PROJECTS PURSUANT TO THE GENERAL PLAN WOULD GENERATE SHORT-TERM EMISSIONS THAT COULD EXCEED SOUTH COAST AIR QUALITY MANGEMENT DISTRICT'S REGIONAL AND LOCALIZED SIGNIFICANCE THRESHOLDS AND WOULD CUMULATIVELY CONTRIBUTE TO THE NONATTAINMENT DESIGNATIONS OF THE SOUTH COAST AIR BASIN. [THRESHOLDS AQ-2, AQ-3, AND AQ-4]**

**Impact Analysis:** Construction activities associated with development anticipated under the General Plan would occur over the buildout horizon (post-2035) of the General Plan and cause short-term emissions of criteria air pollutants. The primary source of NO<sub>x</sub>, CO, and SO<sub>x</sub> emissions is the operation of construction equipment. The primary sources of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions include activities that disturb the soil (such as grading and excavation road construction, and building demolition and construction) and construction equipment exhaust. Construction equipment exhaust is also a source of DPM. The primary source of VOC emissions is the application of architectural coating and off-gas emissions associated with asphalt paving. A discussion of health impacts associated with air pollutant emissions generated by construction activities is included under *Air Pollutants of Concern* in section 5.3-1, *Environmental Setting*.

Information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with construction activity. Due to the scale of development activity associated with buildout of the General Plan, emissions would likely exceed the SCAQMD regional significance thresholds and therefore, in accordance with the SCAQMD methodology, would cumulatively contribute to the nonattainment designations of the SoCAB. The SoCAB is designated nonattainment for O<sub>3</sub> and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). Emissions of VOC and NO<sub>x</sub> are precursors to

the formation of O<sub>3</sub>. In addition, NO<sub>x</sub> is a precursor to the formation of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). Therefore, the proposed project would cumulatively contribute to the nonattainment designations of the SoCAB for O<sub>3</sub>, NO<sub>2</sub>, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>).

Air quality emissions related to construction must be addressed on a project-by-project basis. For this broad-based General Plan, it is not possible to determine whether the scale and phasing of individual projects would result in the exceedance of SCAQMD's short-term regional or localized construction emissions thresholds. An estimate of construction emissions is included in the operational phase regional criteria air pollutant emissions inventory in Impact 5.3-3 below. In addition to regulatory measures (e.g., SCAQMD Rule 201, Rule 403, Rule 1113, Rule 1403, and CARB Rule 2840), mitigation may include extension of construction schedules and/or use of special equipment. Nevertheless, because of the likely scale and extent of construction activities pursuant to the future development anticipated under the General Plan, at least some projects would likely continue to exceed the relevant SCAQMD thresholds. Consequently, construction-related air quality impacts associated with development in accordance with the General Plan are deemed to be significant. Impacts would be the same under the Expanded EDC Scenario.

**IMPACT 5.3-3: BUILDOUT IN ACCORDANCE WITH THE GENERAL PLAN WOULD GENERATE LONG-TERM EMISSIONS THAT WOULD EXCEED SOUTH COAST AIR QUALITY MANGEMENT DISTRICT'S REGIONAL SIGNIFICANCE THRESHOLDS AND CUMULATIVELY CONTRIBUTE TO THE NONATTAINMENT DESIGNATIONS OF THE SOUTH COAST AIR BASIN. [THRESHOLDS AQ-2 AND AQ-3]**

**Impact Analysis:** The General Plan guides growth and development within the City of Menifee by designating land uses in the proposed Land Use Plan and through implementation of the goals and policies of the General Plan. New development would increase air pollutant emissions in the City and contribute to the overall emissions inventory in the SoCAB.



The proposed project includes the planned development of residential, institutional, commercial, office, and industrial uses within developed and undeveloped portions of the City. The City of Menifee includes several permitted sources of air pollution that are regulated by SCAQMD. For these permitted sources, it is assumed no changes would occur to these facilities as part of the General Plan. Buildout of the General Plan (Post-2035 scenarios) would result in an increase in land use intensity in the City. Table 4-2, *Future Buildout Projections*, and Table 4-3, *Future Theoretical Buildout Projects with Expanded EDC Scenario*, identify the buildout statistics for the Post-2035 and Alternative 2 (Expanded EDC) Post-2035 scenarios, respectively.

### City of Menifee Emissions Inventory

The emissions inventory for the City under the proposed General Plan is shown in Table 5.3-9. As shown in the table, implementation of the proposed General Plan would result in an increase in criteria air pollutant emissions from existing conditions. This increase is based on the difference between existing land uses and land uses associated with land uses in horizon year 2035 based on SCAG projections, buildout of the proposed General Plan (see Table 4-2, *Future Buildout Projections*), and the proposed General Plan with Expanded EDC scenario (see Table 4-3, *Future Theoretical Buildout Projections with Expanded EDC Scenario*) in addition to an estimate of population employment in the City post-year 2035.

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**Table 5.3-9  
City of Menifee Regional Emissions Inventory, Post 2035  
(in pounds per day)**

<i>Sector</i>	<i>VOC</i>	<i>NO<sub>x</sub></i>	<i>CO</i>	<i>SO<sub>2</sub></i>	<i>PM<sub>10</sub></i>	<i>PM<sub>2.5</sub></i>
<b>Existing Land Uses</b>						
Transportation <sup>1</sup>	1,329	1,355	11,081	50	637	278
Energy	36	312	165	2	25	25
Area Sources <sup>2</sup>	575	2,545	4,355	3	165	121
<b>Total</b>	<b>1,940</b>	<b>4,212</b>	<b>15,601</b>	<b>54</b>	<b>827</b>	<b>424</b>
Permitted Sources	25	53	21	2	23	6
<b>Total with Permitted Sources</b>	<b>1,964</b>	<b>4,265</b>	<b>15,622</b>	<b>57</b>	<b>850</b>	<b>430</b>
<b>Horizon Year 2035</b>						
Transportation <sup>1</sup>	1,670	1,702	13,924	62	800	350
Energy	45	388	199	2	31	31
Area Sources <sup>2</sup>	621	2,529	5,370	3	167	121
<b>Total</b>	<b>2,336</b>	<b>4,620</b>	<b>19,493</b>	<b>68</b>	<b>998</b>	<b>502</b>
Change from Existing	396	408	3,892	13	171	77
SCAQMD Regional Significance Threshold	55	55	550	150	150	55
<b>Significant?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>
<b>General Plan Buildout (Post 2035)</b>						
Transportation <sup>1</sup>	1,942	1,980	16,197	73	931	407
Energy	99	869	537	5	68	68
Area Sources <sup>2</sup>	912	2,649	9,112	3	181	128
<b>Total</b>	<b>2,953</b>	<b>5,498</b>	<b>25,846</b>	<b>81</b>	<b>1,180</b>	<b>604</b>
Change from Existing	1,013	1,285	10,245	27	353	179
SCAQMD Regional Significance Threshold	55	55	550	150	150	55
<b>Significant?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>
<b>General Plan with Expanded EDC Buildout (Post 2035)</b>						
Transportation <sup>1</sup>	2,015	2,054	16,806	75	966	422
Energy	105	927	586	6	73	73
Area Sources <sup>2</sup>	943	2,661	9,512	3	183	129
<b>Total</b>	<b>3,063</b>	<b>5,643</b>	<b>26,904</b>	<b>84</b>	<b>1,221</b>	<b>624</b>
Change from Existing	1,124	1,431	11,303	30	394	200
SCAQMD Regional Significance Threshold	55	55	550	150	150	55
<b>Significant?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>

Source: OFFROAD2007 (Area-Landscaping, Area-Commercial/Industrial Equipment, and Area-Construction), Southern California Gas Company (Energy-Natural Gas Use), and EMFAC2011 (Transportation) base on vehicle miles traveled (VMT) provided by Urban Crossroads.

Note: Values may not add to 100 percent of the total due to rounding.

<sup>1</sup> Transportation: VMT per year based on a conversion of VMT x 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology (CARB 2008). Existing 2012 land uses modeled using 2035 emissions rates to compare the change due to the project.

<sup>2</sup> Area Sources: Includes unpermitted sources such as light commercial, industrial and other portable equipment from OFFROAD2007, proportioned based on City vs. county employment data. Also includes construction emissions from OFFROAD2007 proportioned based on City vs. county acreage. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the proposed Land Use Plan of the General Plan would require permitting and would be subject to further study pursuant to SCAQMD Regulation VIII, New Source Review and Rule 1401. For purposes of this analysis, it is assumed that emissions from the permitted sources would remain the same.

As shown in the table, horizon year 2035, buildout of the General Plan, and the General Plan with Expanded EDC alternative, would generate long-term emissions that exceed the daily SCAQMD thresholds for all criteria pollutants except for SO<sub>2</sub>. Emissions of VOC and NO<sub>x</sub> are precursors to the formation of O<sub>3</sub>. In addition, NO<sub>x</sub> is a precursor to the formation of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). Consequently, emissions of VOC and NO<sub>x</sub> that exceed the SCAQMD regional significance thresholds would contribute to the O<sub>3</sub>

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nonattainment designation of the SoCAB, and emissions of NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> that exceed the SCAQMD regional significance thresholds would contribute to the particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) nonattainment designation of the SoCAB under the national and California AAQS. Therefore, operational-related air quality impacts associated with future development of the proposed General Plan are significant.

**IMPACT 5.3-4: BUILDOUT OF THE GENERAL PLAN COULD SITE SENSITIVE LAND USES NEAR AIR POLLUTION SOURCES AND THEREFORE EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS. [THRESHOLD AQ-4].**

**Impact Analysis:** Because placement of sensitive land uses falls outside CARB jurisdiction, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* in May 2005 to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources.

CARB's recommendations on the siting of new sensitive land uses were developed from a compilation of recent studies that evaluated data on the adverse health effects ensuing from proximity to air pollution sources. The key observation in these studies is that close proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic: diesel PM from trucks, and benzene and 1,3-butadiene from passenger vehicles. On a typical urban freeway (truck traffic of 10,000 to 20,000/day), diesel PM makes up approximately 84 percent of the potential cancer risk from the vehicle traffic. Table 5.3-10, *CARB Recommendations for Siting New Sensitive Land Uses*, shows a summary of CARB recommendations for siting new sensitive land uses within the vicinity of air-pollutant-generating sources. Recommendations in this table are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

The proposed Land Use Plan would potentially intensify uses surrounding the freeway at buildout. New development associated with the proposed General Plan surrounding Interstate 215 (I-215) has the potential to expose sensitive receptors to substantial pollutant concentrations from diesel exhaust. The association of truck-related diesel emissions with adverse health effects is generally strongest between 300 and 1,000 feet and diminishes with distance. The impact of traffic emissions is on a gradient that at some point becomes indistinguishable from the regional air pollution problem. CARB recommends avoiding siting new sensitive land uses within "500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day." Because roadway volumes on I-215 would have more than 100,000 vehicles per day, buildout of the proposed Land Use Plan has the potential to expose sensitive receptors to substantial concentrations of air pollutant emissions if constructed within 500 feet of this freeway. No other roadways within the City have or are projected to have more than 100,000 average daily vehicle trips. Table 5.3-10 lists other air-pollutant-generating sources that can affect localized air quality. If new sensitive development were placed in the vicinity of any of these sources, such as the light and heavy manufacturing/warehousing located in the northern portion of the City along Ethanac Road, then sensitive receptors may be exposed to significant concentrations of air pollutants.



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**Table 5.3-10  
CARB Recommendations for Siting New Sensitive Land Uses**

<b>Source Category</b>	<b>Advisory Recommendations</b>
Freeways and High-Traffic Roads	<ul style="list-style-type: none"> <li>• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.</li> </ul>
Distribution Centers	<ul style="list-style-type: none"> <li>• Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week).</li> <li>• Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.</li> </ul>
Rail Yards	<ul style="list-style-type: none"> <li>• Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard.</li> <li>• Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.</li> </ul>
Ports	<ul style="list-style-type: none"> <li>• Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks.</li> </ul>
Refineries	<ul style="list-style-type: none"> <li>• Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.</li> </ul>
Chrome Platers	<ul style="list-style-type: none"> <li>• Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.</li> </ul>
Dry Cleaners Using Perchloroethylene	<ul style="list-style-type: none"> <li>• Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district.</li> <li>• Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.</li> </ul>
Gasoline Dispensing Facilities	<ul style="list-style-type: none"> <li>• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.</li> </ul>

Source: CARB 2005.

In accordance with CEQA, new development would be required to assess the localized air quality impacts from placement of new sensitive uses within the vicinity of air pollutant sources. In addition, Policy OSC 9.2, which calls for adding buffer zones between sensitive land uses and air pollutant emission sources, would reduce impacts for future development projects to the extent feasible. However, sensitive receptors could be exposed to substantial pollutant concentrations near major sources of air pollutants in the absence of mitigation. Therefore, air quality impacts from placement of sensitive uses near major pollutant sources are considered significant.

Impacts would be similar for the Expanded EDC Scenario.

**IMPACT 5.3-5 OPERATION OF NEW STATIONARY/AREA SOURCES AND TRUCK IDLING WITHIN THE CITY OF MENIFEE FROM BUILDOUT OF THE GENERAL PLAN COULD EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL TOXIC AIR CONTAMINANT CONCENTRATIONS. [THRESHOLD AQ-4]**

**Impact Analysis:** Operation of new land uses, consistent with the Land Use Plan of the General Plan, would generate new sources of criteria air pollutants and toxic air contaminants within the City from area/stationary sources and mobile sources.

### Toxic Air Contaminants

Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the proposed General Plan would be expected to release TACs. Land uses that have the potential to be substantial stationary sources that would require a permit from SCAQMD for emissions of TACs include industrial land uses, such as chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. Emissions of TACs would be controlled by SCAQMD through permitting and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits under SCAQMD Rule 1401. Because the nature of those emissions cannot be determined at this time and they are subject to further regulation and permitting, they will not be addressed further in this analysis but are considered a potentially significant impact of the proposed General Plan.

In addition to stationary/area sources of TACs, warehousing operations could generate a substantial amount of diesel particulate matter emissions from off-road equipment use and truck idling. DPM accounts for approximately 84 percent of the excess cancer risk in the SoCAB (SCAQMD 2008). New land uses in the City that use trucks, including trucks with transport refrigeration units, could generate an increase in DPM that would contribute to cancer and noncancer health risk in the SoCAB. These new land uses could be proximate to existing sensitive receptors within and outside the City of Menifee. In addition, trucks would travel on regional transportation routes through the SoCAB, contributing to near-roadway DPM concentrations. This is considered a significant impact of the project.

Impacts would be the same for the Expanded EDC Scenario.

### CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. At the time of the 1993 Handbook, the SoCAB was designated nonattainment under the California AAQS and National AAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined. In 2007, the SCAQMD was designated in attainment for CO under both the California AAQS and National AAQS. As identified within SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. A CO hot spot analysis was conducted for four busy intersections in Los Angeles<sup>8</sup> at the peak morning and afternoon time periods and did not predict a violation of CO standards. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2012). Buildout of the General Plan would not produce the volume of traffic required to generate a CO hotspot. Therefore, CO hotspots are not an environmental impact of concern for the proposed project.

Impacts would be the same for the Expanded EDC Scenario.

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<sup>8</sup> The four intersections were Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day and LOS E in the morning peak hour and LOS F in the evening peak hour.



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**IMPACT 5.3-6: BUILDOUT OF THE MENIFEE GENERAL PLAN COULD POTENTIALLY EXPOSE SUBSTANTIAL NUMBERS OF PEOPLE TO NUISANCE ODORS. [THRESHOLD AQ-5]**

**Impact Analysis:** Growth within the City of Menifee could generate new sources of odors and place sensitive receptors near existing sources of odors. Nuisance odors from land uses in the SoCAB are regulated under SCAQMD Rule 402, Nuisance, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Land uses that have the potential to generate substantial odor complaints include wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facility, and food manufacturing and chemical plants. The closest wastewater treatment plant is the Perris Valley Regional Water Reclamation Facility near the northern boundary of the City. The proposed Land Use Plan would result in placement of industrial land uses proximate to this facility, which would preclude placement of sensitive land uses that could find odors objectionable.

The northern portion of the City is designated for industrial development, primarily to accommodate warehousing and other light industrial land uses. These developments would be required to comply with SCAQMD Rule 402. However, additional measures may be necessary to prevent an odor nuisance. Therefore, industrial land uses associated with the General Plan may generate a potentially significant odor impact to a substantial number of people.

Future residential and commercial development associated with buildout of the Menifee General Plan would involve minor odor-generating activities, such as lawn mower exhaust, application of exterior paints for building improvement, and cooking odors (e.g., restaurants). However, unlike industrial land uses, these land uses are not considered potential generators of odor that could affect a substantial number of people. Therefore, impacts from potential odors generated from residential and commercial land uses associated with the General Plan are considered less than significant.

During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent in nature. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials. Therefore, impacts associated with construction-generated odors are considered less than significant.

Impacts would be the same under the Expanded EDC Scenario.

#### 5.3.4 Existing Regulations and Standard Conditions

##### Federal and State

- SCAQMD Rule 201: Permit to Construct

- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 1113: Architectural Coatings
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities
- SCAQMD Rule 1186: Street Sweeping
- CARB Rule 2480 (13 CCR 2480): Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools: limits nonessential idling for commercial trucks and school buses within 100 feet of a school.
- CARB Rule 2485(13 CCR 2485): Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling: limits nonessential idling to five minutes or less for commercial trucks.
- CARB Rule 2449(13 CCR 2449): In-Use Off-Road Diesel Idling Restricts: limits nonessential idling to five minutes or less for diesel-powered off-road equipment.
- Building Energy Efficiency Standards (Title 24)
- Appliance Energy Efficiency Standards (Title 20)
- Motor Vehicle Standards (AB 1493)



### Relevant General Plan Policies

Relevant Menifee General Plan policies are in the Circulation Element and Open Space and Conservation Element and are listed in Appendix C of this EIR.

### 5.3.5 Level of Significance Before Mitigation

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.3-1 The General Plan would be inconsistent with SCAQMD's AQMP because buildout of the Land Use Plan would cumulatively contribute to the nonattainment designations of the SoCAB and the AQMP does not account for emissions associated with buildout of the General Plan post Year 2035.
- Impact 5.3-2 Construction activities associated with buildout of the General Plan would generate short-term emissions that exceed SCAQMD's regional and localized significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB.
- Impact 5.3-3 Buildout in accordance with the General Plan would generate long-term emissions that would exceed SCAQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SoCAB.

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- Impact 5.3-4 Buildout of the General Plan could site sensitive land uses near air pollution sources and therefore expose sensitive receptors to substantial pollutant concentrations.
- Impact 5.3-5 Operation of new stationary/area sources and truck idling within the City of Menifee from buildout of the General Plan could expose sensitive receptors to substantial toxic air contaminant concentrations.
- Impact 5.3-6 Buildout of the Menifee General Plan could potentially expose substantial numbers of people to nuisance odors.

The above significance conclusions would be the same under the Expanded EDC Scenario.

### 5.3.6 Mitigation Measures

#### Impact 5.3-1

3-1 If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the South Coast Air Quality Management District (SCAQMD) adopted thresholds of significance, the City of Menifee Community Development Department shall require that applicants for new development projects incorporate mitigation measures as identified in the CEQA document prepared for the project to reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:

- Requiring fugitive dust control measures that exceed SCAQMD's Rule 403, such as:
  - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
  - Applying water every four hours to active soil-disturbing activities.
  - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the SCAQMD's website at: [http://www.aqmd.gov/prdas/brochures/Super-Compliant\\_AIM.pdf](http://www.aqmd.gov/prdas/brochures/Super-Compliant_AIM.pdf).

#### Impact 5.3-2

Implementation of Mitigation Measure 3-1.

### Impact 5.3-3

Implementation of Mitigation Measure 3-1.

### Impact 5.3-4

3-2 The City shall require project applicants for residential or residential mixed-use projects within: 1) 1,000 feet from the truck bays of an existing distribution centers that accommodate more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units, or where transport refrigeration unit operations exceed 300 hours per week; 2) 1,000 feet of an industrial facility which emits toxic air contaminants; or 3) 500 feet of Interstate 215 (I-215) to submit a health risk assessment (HRA) prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the South Coast Air Quality Management District (SCAQMD).

The HRA shall be submitted to the Community Development Director or designee prior to approval of any future discretionary residential or residential mixed-use project. If the HRA shows that the incremental cancer risk exceeds one in one hundred thousand (1.0E-05), the appropriate noncancer hazard index exceeds 1.0, or if the PM<sub>10</sub> or PM<sub>2.5</sub> ambient air quality standard increment exceeds 2.5 µg/m<sup>3</sup>, the HRA shall identify the level of high-efficiency Minimum Efficiency Reporting Value (MERV) filter required to reduce indoor air concentrations of pollutants to achieve the cancer and/or noncancer threshold.

The applicant shall be required to install high efficiency MERV filters in the intake of residential ventilation systems, consistent with the recommendations of the HRA. Heating, air conditioning and ventilation (HVAC) systems shall be installed with a fan unit power designed to force air through the MERV filter. To ensure long-term maintenance and replacement of the MERV filters in the individual units, the following shall occur:

- a) Developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk for affected units.
- b) For rental units, the owner/property manager shall maintain and replace MERV filters in accordance with the manufacture's recommendations. The property owner shall inform renters of increased risk of exposure to diesel particulates when windows are open.
- c) For residential owned units, the Homeowner's Association (HOA) shall incorporate requirements for long-term maintenance in the Covenant Conditions and Restrictions and inform homeowners of their responsibility to maintain the MERV filter in accordance with the manufacturer's recommendations. The HOA shall inform homeowners of increased risk of exposure to diesel particulates when windows are open.
- d) Outdoor active-use public recreational areas associated with development projects shall be located more than 500 feet from the nearest lane of traffic on the I-215 unless risk are below the thresholds identified above.

### Impact 5.3-5

3-3 New industrial or warehousing land uses that 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport



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refrigeration units (TRUs), and 2) are located within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Menifee Community Development Director prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds one in one hundred thousand (1.0E-05), the appropriate noncancer hazard index exceeds 1.0, or if the PM<sub>10</sub> or PM<sub>2.5</sub> ambient air quality standard increment exceeds 2.5 µg/m<sup>3</sup>, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

#### Impact 5.3-6

3-4 If it is determined during project-level environmental review that a project has the potential to emit nuisance odors beyond the property line, an odor management plan may be required, subject to Community Development Director or designee review. Facilities that have the potential to generate nuisance odors include but are not limited to:

- Wastewater treatment plants
- Composting, greenwaste, or recycling facilities
- Fiberglass manufacturing facilities
- Painting/coating operations
- Large-capacity coffee roasters
- Food-processing facilities

If an Odor Management Plan is determined to be required through CEQA review, the City shall require the project applicant to submit the plan prior to approval to ensure compliance with the South Coast Air Quality Management District's Rule 402, for nuisance odors. If applicable, the Odor Management Plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to scrubbers (e.g., air pollution control devices) at the industrial facility. T-BACTs identified in the Odor Management Plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

#### 5.3.7 Level of Significance After Mitigation

##### Impact 5.3-1

Mitigation measure 3-1 incorporated into future development projects for operation and construction phases would reduce criteria air pollutant emissions associated with buildout of the proposed General Plan. Goals and policies included in the proposed General Plan would facilitate continued City cooperation with SCAQMD and SCAG to achieve regional air quality improvement goals, promotion of energy conservation design and development techniques, encouragement of alternative transportation modes, and implementation of transportation demand management strategies. However, no mitigation measures are

available that would reduce impacts associated with inconsistency with the AQMP. Therefore, Impact 5.3-1 would remain **significant and unavoidable**.

### Impact 5.3-2

Implementation of Mitigation Measure 3-1 would reduce criteria air pollutant emissions from construction-related activities. However, due to the magnitude of emissions generated by future construction activities, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Therefore, Impact 5.3-2 would remain **significant and unavoidable**.

### Impact 5.3-3

Goals and policies are included in the proposed General Plan that would reduce air pollutant emissions. Policies are included as part of the General Plan to reduce idling and vehicle trip lengths and encourage use of alternative forms of transportation would also reduce criteria air pollutants within the City. However, due to the magnitude of emissions generated by office, commercial, industrial, and warehousing land uses, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Therefore, Impact 5.3-3 would remain **significant and unavoidable**.

### Impact 5.3-4

Mitigation Measure 3-2 would ensure that placement of sensitive receptors near major sources of air pollutants would achieve the incremental risk thresholds. Therefore, Impact 5.3-4 would be less than significant.

### Impact 5.3-5

Goals and policies are included in the General Plan that would reduce concentrations of criteria air pollutant emissions and air toxics generated by new development. Review of projects by SCAQMD for permitted sources of air toxics would ensure health risks are minimized. The following mitigation measure would ensure mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review. Development of individual projects may achieve the incremental risk thresholds established by SCAQMD.

Review of projects by SCAQMD for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) would ensure health risks are minimized. Mitigation Measure 3-3 would ensure mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review. Development of individual projects may achieve the incremental risk thresholds established by SCAQMD. However, the incremental increase in health risk associated with individual projects is considered cumulatively considerable and would contribute to already elevated levels of cancer and noncancer health risks in the SoCAB. Therefore, Impact 5.3-5 would remain **significant and unavoidable**.

### Impact 5.2-6

Mitigation Measure 3-4 would ensure that odor impacts are minimized and facilities would comply with SCAQMD Rule 402. Therefore, Impact 5.2-6 would be less than significant.

The significance conclusions above would be the same under the Expanded EDC Scenario.



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