



SECTION 5.4

Air Quality



5.4 AIR QUALITY

This section focuses on potential short-term (construction) air quality impacts and long-term local and regional air quality impacts associated with the proposed project. The analysis presented in this section is based on the calculations, analysis, and conclusions contained in the project's *Air Quality Impact Analysis* report, prepared by Environmental Science Associates (December 2008, updated January 2009), which is included in its entirety as Appendix H1, Air Quality Impact Analysis.

Since the *Air Quality Impact Analysis* was updated in 2009, minor modifications to the project description have occurred. These minor modifications include the relocation or realignment of drainage and water quality features; refinement and further definition of on- and off-site equestrian/recreational trails; design revisions for on-site roadway bridges; and minor refinements to roadway cross-sections and alignments, including additional definition regarding off-site improvements along Lost Canyon Road. Upon review of project modifications occurring since preparation of the updated *Air Quality Impact Analysis*, it has been determined that: 1) modifications do not require an alteration or expansion of the established project impact footprint; 2) refinements do not affect the total proposed dwelling units, associated square footage, or vehicle trip generation resulting from development; and 3) refinements do not require a substantial increase in grading, excavation, import/export of soil, or type/quantity of construction equipment to be utilized. Thus, it has been determined that the conservative impact methodologies utilized within the updated *Air Quality Impact Analysis* remain applicable to the project and the analysis accurately reflects the project's potential for air quality impacts. The *Air Quality Impact Analysis* was prepared in conformance with appropriate standards, utilizing procedures and methodologies set forth by the *CEQA Air Quality Handbook* prepared by the South Coast Air Quality Management District (SCAQMD), April 1993 (as revised through November 1993). Modeled air quality levels discussed in the *Air Quality Impact Analysis* are based upon vehicle data and project trip generation included in a traffic impact analysis prepared for the proposed project by Iteris, Inc. (October 25, 2010).

5.4.1 REGULATORY SETTING

FEDERAL

The U.S. Environmental Protection Agency (U.S. EPA) is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and amended numerous times after. The FCAA established Federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are O₃, CO, NO₂ (which is a form of nitrogen oxides [NO_x]), SO₂ (which is a form of sulfur oxides [SO_x]), particulate matter less than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}, respectively), and Pb; refer to Table 5.4-1, National and California Ambient Air Quality Standards.



**Table 5.4-1
National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California ¹		Federal ²	
		Standard ³	Attainment Status	Standards ⁴	Attainment Status
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Nonattainment	N/A ⁵	N/A ⁵
	8 Hours	0.07 ppm (137 µg/m ³)	Unclassified	0.075 ppm (147 µg/m ³)	Nonattainment
Particulate Matter (PM ₁₀)	24 Hours	50 µg/m ³	Nonattainment	150 µg/m ³	Nonattainment
	Annual Arithmetic Mean	20 µg/m ³	Nonattainment	N/A ⁶	Nonattainment
Fine Particulate Matter (PM _{2.5})	24 Hours	No Separate State Standard		35 µg/m ³	Unclassified
	Annual Arithmetic Mean	12 µg/m ³	Nonattainment	15.0 µg/m ³	Nonattainment
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Attainment
	1 Hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Attainment
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	N/A	0.053 ppm (100 µg/m ³)	Attainment
	1 Hour	0.18 ppm (339 µg/m ³)	Attainment	0.100 ppm	N/A
Lead (Pb)	30 days average	1.5 µg/m ³	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 µg/m ³	Attainment
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	N/A	N/A	0.03 ppm (80 µg/m ³)	Attainment
	24 Hours	0.04 ppm (105 µg/m ³)	Attainment	0.14 ppm (365 µg/m ³)	Attainment
	3 Hours	N/A	N/A	N/A	Attainment
	1 Hour	0.25 ppm (655 µg/m ³)	Attainment	75 ppb	N/A
Visibility-Reducing Particles	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Unclassified		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)	Unclassified		

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

Notes:

1 – California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM₁₀ and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In 1990, CARB identified vinyl chloride as a toxic air contaminant, but determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 ppm ambient concentration specified in the 1978 standard.

2 – National standards (other than ozone, particulate matter and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. EPA also may designate an area as *attainment/unclassifiable*, if: (1) it has monitored air quality data that show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

3 – Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 – National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

5 – The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.

6 – The Environmental Protection Agency revoked the annual PM₁₀ standard in 2006 (effective December 16, 2006).

Source: California Air Resources Board and United States Environmental Protection Agency, August 3, 2010.



STATE

The California Air Resources Board (CARB) administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in *Table 5.4-1*, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The CCAA, which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS.

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

REGIONAL AIR QUALITY PLANNING FRAMEWORK

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The SCAQMD is one of 35 air quality management districts that have prepared AQMP's to accomplish a five-percent annual reduction in emissions. The *2007 Air Quality Management Plan for the South Coast Air Basin (2007 AQMP)* relies on a multi-level partnership of governmental agencies at the Federal, State, regional, and local level. The *2007 AQMP* proposes policies and measures to achieve Federal and State standards for improved air quality in the South Coast Air Basin (Basin) and those portions of the Salton Sea Air Basin (formerly named the Southeast Desert Air Basin) that are under SCAQMD jurisdiction. The *2007 AQMP* includes new information on key elements such as:

- Current air quality;
- Improved emission inventories, especially significant increase in mobile source emissions;
- An overall control strategy comprised of: Stationary and Mobile Source Control Measures, SCAQMD, State and Federal Stationary and Mobile Source Control Measures, and the Southern California Association of Governments Regional Transportation Strategy and Control Measures;
- New attainment demonstration for PM_{2.5} and O₃;
- Milestones to the Federal Reasonable Further Progress Plan; and
- Preliminary motor vehicle emission budgets for transportation conformity purposes.



The Basin is currently in non-attainment for ozone and particulate matter. The *2007 AQMP* states that “the overall control strategy for this Final Plan is designed to meet applicable Federal and State requirements, including attainment of ambient air quality standards. The focus of the *2007 AQMP* is to demonstrate attainment of the Federal PM_{2.5} ambient air quality standard by 2015 and the Federal 8-hour ozone standard by 2024, while making expeditious progress toward attainment of state standards. The proposed strategy, however, does not attain the previous Federal 1-hour ozone standard by 2010 as previously required prior to the recent change in Federal regulations.”

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG serves as the Federally-designated Metropolitan Planning Organization for the Southern California region and is the largest metropolitan planning organization in the United States. With respect to air quality planning, SCAG has prepared the *Regional Comprehensive Plan and Guide* for the region, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the *2007 AQMP*. SCAG is responsible under the FCAA for determining conformity of projects, plans, and programs with the SCAQMD.

LOS ANGELES COUNTY CONGESTION MANAGEMENT PLAN

The Congestion Management Plan (CMP) for the County of Los Angeles was developed to meet the requirements of *California Government Code* Section 65089. In enacting the CMP statute, the State legislature noted the increasing concern that urban congestion was influencing the economic vitality of the state and diminishing the quality of life in many communities. The CMP was created to further the following objectives:

- To link land use, transportation and air quality decisions.
- To develop a partnership among transportation decision makers to encourage appropriate transportation solutions include all modes of travel.
- To propose transportation projects which are eligible for state gas tax funds.

CITY OF SANTA CLARITA

Local jurisdictions, such as the City of Santa Clarita, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City of Santa Clarita is also responsible for the implementation of transportation control measures as outlined in the *2007 AQMP*. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. The City has responded to this responsibility by adopting the *General Plan Conservation and Open Space Element* (June 14, 2011), which establishes goals, objectives, and policies that would help to reduce regional air pollutant emissions through physical improvements, action programs, and educational programs.



General Plan

The following objectives and policies from the *General Plan Conservation and Open Space Element* are relevant to the proposed project.

Objective CO 7.1: Reduce air pollution from mobile sources.

Policy CO 7.1.1: Through the mixed land use patterns and multi-modal circulation policies set forth in the Land Use and Circulation Elements, limit air pollution from transportation sources.

Policy CO 7.1.2: Support the use of alternative fuel vehicles.

Policy CO 7.1.3: Support alternative travel modes and new technologies, including infrastructure to support alternative fuel vehicles, as they become commercially available.

Objective CO 7.2: Apply guidelines to protect sensitive receptors from sources of air pollution as developed by the California Air Resources Board (CARB), where appropriate.

Policy CO 7.2.1: Ensure adequate spacing of sensitive land uses from the following sources of air pollution: high traffic freeways and roads; distribution centers; truck stops; chrome plating facilities; dry cleaners using perchloroethylene; and large gas stations, as recommended by CARB.

Objective CO 7.3: Coordinate with other agencies to plan for and implement programs for improving air quality in the South Coast Air Basin.

Policy CO 7.3.1: Coordinate with local, regional, state, and federal agencies to develop and implement regional air quality policies and programs.

In accordance with *California Environmental Quality Act (CEQA)* requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts. The City utilizes the *CEQA Air Quality Handbook* as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

5.4.2 ENVIRONMENTAL SETTING

REGIONAL AIR QUALITY CONDITIONS

The City of Santa Clarita is located within the Basin, which includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The City lies in Los Angeles County north of the San Fernando Valley, surrounded by the Santa Susana and San Gabriel mountain ranges on the south, east, and west, and the Sierra Pelona Mountains on the north. Air pollution is directly related to a region's topographic features and the Basin is a coastal plain with connecting broad valleys and low hills. Situated far enough from the ocean to usually escape coastal damp air and fog, the summers are hot and the winters sunny and warm.



Santa Clarita's climate is relatively mild. Annual average daytime temperatures range from 89.7 degrees Fahrenheit (F) in summer to 63.6 degrees F in winter. Low temperatures average 58.9 degrees F in summer and 41.3 degrees F in winter. In wintertime during calm, clear nights, the localized mountain/valley drainage flow is enhanced and cool air drains downslope towards the valley floor. Annual precipitation for Santa Clarita is 13.10 inches, which occurs almost exclusively from late October to early April. Winds across the project area are an important meteorological parameter since they control the initial rate of dilution of locally generated air pollutant emissions, as well as their regional trajectory. Predominant wind patterns for the Santa Clarita area generally follow those described for a mountain/valley regime. During the day, effects of the on-shore flow reach inland and are enhanced by a localized up-valley or mountain pass wind. During the night, surface radiation cools the air in the mountains and hills, which flows down-valley, producing a gentle periodic winds.

The air quality within the Basin is primarily influenced by a wide range of emissions sources such as dense population centers, heavy vehicular traffic, and industry, as well as meteorology. Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

The criteria air pollutants which are most relevant to current air quality planning and regulation in the Basin include O₃, CO, NO₂, PM₁₀, PM_{2.5}, and SO₂. Each of these is briefly described below.

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

CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency, as seen in high altitudes) are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of CO. Exposure to high levels of CO can slow reflexes and cause drowsiness, as well as result in death in confined spaces at very high concentrations.

Nitrogen Dioxide. Nitrogen oxides (NO_x) are a family of highly reactive gases that are a primary precursor to the formation of ground-level O₃, and react in the atmosphere to form acid rain. NO₂ (often used interchangeably with NO_x) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO₂ occur in areas that have a high concentration of combustion sources (i.e., motor vehicle engines, power plants, refineries, and other industrial operations).

NO₂ can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO₂ concentrations that are typically much higher than those normally found in the ambient air, may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may aggravate eyes and mucus membranes as well as cause pulmonary dysfunction.



Ozone. Ozone (O_3) occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" O_3 layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

The "Bad" O_3 is a photochemical pollutant, and needs reactive organic compounds (ROGs), NO_x , and sunlight to form; therefore, ROGs and NO_x are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these O_3 precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3 . Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

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

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the EPA announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.



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

LOCAL AIR QUALITY

The SCAQMD monitors air quality at 37 monitoring stations throughout the Basin. Each monitoring station is located within a Source Receptor Area (SRA). The communities within an SRA are expected to have similar climatology and ambient air pollutant concentrations. The City of Santa Clarita is located within SRA 13, which covers the entire Santa Clarita Valley. Ambient air pollutant concentrations within SRA 13 are monitored approximately four miles west of the project site at 22224 Placerita Canyon Road. *Table 5.4-2, Local Air Quality Levels*, identifies the Federal and State ambient air quality standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured in SRA 13 for the period of 2007 to 2009.

**Table 5.4-2
Local Air Quality Levels**

Pollutant	Primary Standard		Year	Maximum ¹ Concentration	Number of Days State/Federal Std. Exceeded
	California	Federal			
Carbon Monoxide (CO) ² (1-Hour)	20 ppm for 1 hour	35 ppm for 1 hour	2007	1.90 ppm	0/0
			2008	1.60	0/0
			2009	1.80	0/0
Carbon Monoxide (CO) ² (8-Hour)	9 ppm for 8 hours	9 ppm for 8 hours	2007	1.20 ppm	0/0
			2008	1.14	0/0
			2009	1.35	0/0
Ozone (O ₃) (1-Hour) ²	0.09 ppm for 1 hour	NA ³	2007	0.135 ppm	31/2
			2008	0.160	54/8
			2009	0.140	57/5
Ozone (O ₃) (8-Hour) ²	0.070 ppm for 8 hours	0.075 ppm for 8 hours	2007	0.110 ppm	65/44
			2008	0.131	81/60
			2009	0.122	77/64
Nitrogen Dioxide (NO ₂) ²	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2007	0.084 ppm	0/NA
			2008	0.073	0/NA
			2009	0.060	0/NA
Particulate Matter (PM ₁₀) ^{2,4,5}	50 µg/m ³ for 24 hours	150 µg/m ³ for 24 hours	2007	167.0 µg/m ³	3/1
			2008	91.0	2/0
			2009	56.0	1/0
Fine Particulate Matter (PM _{2.5}) ^{2,5}	No Separate State Standard	35 µg/m ³ for 24 hours	2007	No data	No data
			2008	35.9 µg/m ³	NM/1
			2009	42.8	NM/3
ppm = parts per million		PM ₁₀ = particulate matter 10 microns in diameter or less			
µg/m ³ = micrograms per cubic meter		PM _{2.5} = particulate matter 2.5 microns in diameter or less			
NM = Not Measured		NA = Not Applicable			
<i>(footnotes continued on following page)</i>					



(footnotes continued from following page)

Notes:

- 1 – Maximum concentration is measured over the same period as the California Standard.
- 2 – Measurements taken at the Santa Clarita Monitoring Station (located at 22224 Placerita Canyon Road, Santa Clarita, California).
- 3 – The United States Environmental Protection Agency revoked the Federal 1-hour Standard in June of 2005.
- 4 – PM₁₀ exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
- 5 – PM₁₀ and PM_{2.5} exceedances are derived from the number of samples exceeded, not days.

Source: California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Air Quality Data Statistics*, <http://www.arb.ca.gov/adam/welcome.html>, accessed on October 4, 2010.

EXISTING PROJECT SITE EMISSIONS

The project site is currently undeveloped and does not support uses that generate emissions on a regular basis. Any air pollutant emissions currently generated at the project site are generally associated with off-road vehicles and the Metrolink railroad trains that traverse the northern portion of the project site.

SENSITIVE RECEPTORS

In Chapter 5 of the CEQA *Air Quality Handbook*, the SCAQMD defines typical sensitive receptors as residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, convalescent centers, and retirement homes. These population groups are considered more sensitive to air pollution than others. The project site is located in an area primarily developed by residential and recreational land uses. The nearest sensitive receptors are residential uses, which are located within 500 feet of the southern and western project boundaries, and the Robinson Ranch Golf Course users adjacent to the south. There are currently no known schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, or retirement homes, located within 0.25 mile of the project site.

5.4.3 SIGNIFICANCE THRESHOLD CRITERIA

Under CEQA, the SCAQMD is a responsible agency on air quality within its jurisdiction or impacting its jurisdiction. Under the FCAA, the SCAQMD has adopted Federal attainment plans for O₃ and PM₁₀. The SCAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The CEQA *Air Quality Handbook* also provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. Exceedance of the SCAQMD thresholds could result in a potentially significant impact. However, ultimately the lead agency determines the thresholds of significance for impacts. If the project proposes development in excess of the established thresholds, as illustrated in *Table 5.4-3, SCAQMD Emissions Thresholds*, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.



Table 5.4-3
SCAQMD Emissions Thresholds

Phase	Pollutant (lbs/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55

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

Additionally, the SCAQMD criterion recommends performing a CO hotspot analysis when a project increases the volume to capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service (LOS) D or worse.

The *City of Santa Clarita Local CEQA Guidelines* (Resolution 05-38) adopted on April 26, 2005 and the Initial Study Environmental Checklist form in *CEQA Guidelines* Appendix G serve as the thresholds for determining the significance of impacts relating to air quality. As such, a project would be considered to have a significant environmental impact if it would result in the following:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

5.4.4 PROJECT IMPACTS AND MITIGATION MEASURES

AIR QUALITY MANAGEMENT PLAN CONSISTENCY

- ***DEVELOPMENT OF THE PROPOSED PROJECT COULD CONFLICT WITH THE SCAQMD'S ADOPTED AIR QUALITY MANAGEMENT PLAN.***

Level of Significance Before Analysis and Mitigation: Less Than Significant Impact.

Impact Analysis: The 2007 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, and return clean air to the region. Projects that are considered to be consistent with the 2007 AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the 2007 AQMP. The SCAQMD's *CEQA Handbook* suggests an evaluation of the following two criteria to determine whether a project would be consistent or in conflict with the 2007 AQMP:



- (1) The project will not generate population and employment growth that would be inconsistent with SCAG's growth forecasts.
- (2) The project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the *2007 AQMP*.

Consistency Criterion No. 1 refers to SCAG's growth forecasts and associated assumptions included in the *2007 AQMP*. The future air quality levels projected in the *2007 AQMP* are based on several assumptions. For example, SCAQMD assumes that new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the *Regional Comprehensive Plan and Guide (RCPG)*. SCAG derives its assumptions, in part, from the general plans of cities located within the SCAG region. Therefore, if a project is consistent with the growth projections in the general plan, it is considered consistent with the growth assumptions in the *2007 AQMP*.

The proposed project is consistent with the *Santa Clarita General Plan* designations of Non-Urban 5 and Urban Residential 1, and the *UDC* designations of Residential Low and Residential Very Low. Therefore, the proposed project is consistent with the current land use designations and would not require a General Plan amendment. In addition, the SCAQMD also highlights a "jobs-housing balance" as a strategy to reduce vehicle trips and vehicle miles traveled (VMT), when sufficient jobs are locally available to balance the employment demands of the community, and when commercial services are convenient to residential areas.

As of January 1, 2010, the City's total population was estimated at 176,320 persons, as reported in the 2010 US Census. The proposed project involves the development of 99 single-family residential units and open space areas on currently undeveloped land at the eastern edge of the City of Santa Clarita. Using the California State Department of Finance average household size of 3.092 persons, the 99 new residential units would generate an average resident population of 306 persons (99 units x 3.092 person/unit = 306.1 persons). The increase in population is considered minimal, as it would represent 0.002 percent of the City's projected growth for 2010 and would not constitute substantial growth beyond the projections established by SCAG for the Santa Clarita Valley and City of Santa Clarita. Therefore, the proposed project would be consistent with the *2007 AQMP* population forecasts and impacts in this regard would be less than significant.

Consistency Criterion No. 2 refers to the CAAQS, and CO is the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis (described below under *Localized Air Quality Impacts*) indicates that the proposed project would not exacerbate existing violations of the State 1-hour and 8-hour CO concentration standards. Therefore, the proposed project is consistent with Consistency Criterion No. 2.

In summary, implementation of the proposed project would be consistent with applicable air quality management plans and policies, such as the growth projections and assumptions of the *2007 AQMP* and the City's *General Plan*. Impacts in this regard would be less than significant.



Mitigation Measures: No mitigation measures are required.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

CONSTRUCTION IMPACTS

- **CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN AIR POLLUTANT EMISSIONS IMPACTS.**

Level of Significance Before Analysis and Mitigation: Potentially Significant Impact.

Impact Analysis: Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and construction worker vehicle trips. Fugitive dust emissions would also result from grading and other construction activities. The project site is currently undeveloped; therefore, demolition activities would not be required. The initial phase would be to clear the site of vegetation and ground cover, with site clearing requiring approximately one month.

Grading is anticipated to include approximately 770,000 cubic yards of excavated soil and approximately 689,000 cubic yards of remedial grading for a total of approximately 1,459,000 cubic yards. All earthwork, including remedial grading, would be balanced on-site with no need for import or export of soils. Grading is anticipated to begin at the end of winter in order to take advantage of the soil moisture from the previous season's rain while concluding grading prior to the start of the next rainy season. A maximum of 10 acres per day would be disturbed during grading operations and would last approximately 10 months. These numbers represent a worst-case scenario and were the assumptions modeled in the *Air Quality Impact Analysis* (updated January 2009). Subsequent to the January 2009 analysis, the project applicant revised the grading numbers to include approximately 624,000 cubic yards of excavated soil and approximately 660,000 cubic yards of remedial grading for a total of approximately 1,284,000 cubic yards. The revised grading numbers are less than those modeled in the *Air Quality Impact Analysis*.

Ultimately, 99 single-family residential units and open space areas would be developed on approximately 172.6 acres of land.¹ This analysis conservatively assumes construction would be completed over a span of three years. However, the actual construction of the residential units would depend on market conditions.

The construction assumptions utilized for the *Air Quality Impact Analysis* include the following:

- Land uses include 99 single-family residential units and ancillary/recreational uses;
- Mass grading emissions from cut and fill operations assumed that 170 acres would be disturbed, with a maximum daily disturbance of 10 acres; and
- Grading would require the movement of a total of 1,459,000 cubic yards of soils, which would be balanced on-site.

¹ The total site acreage is 187.3; however 14.7 acres are called out at "Not a Part" upon which no development would occur. Thus, the developable acreage is 172.6.



Further details on the modeling assumptions can be found in Appendix H1, Air Quality Impact Analysis. As presented in *Table 5.4-4, Estimated Daily Construction Emissions*, construction-related daily emissions would not exceed the SCAQMD significance thresholds with the implementation of Mitigation Measures AQ-1 and AQ-2. To ensure regional construction emissions are below the SCAQMD's thresholds, Mitigation Measure AQ-1 would be required to (1) implement the requirements of SCAQMD Rule 403; (2) set forth a program of air pollution control strategies designed to reduce the proposed project's construction air quality impacts to the extent feasible; and (3) minimize potential impacts to sensitive receptors. Mitigation Measure AQ-2 would require a Dust Control Supervisor to be present on-site to perform the measurement of airborne dust levels using real-time data-logging monitors. With implementation of Mitigation Measures AQ-1 and AQ-2, construction air quality impacts would be reduced to less than significant levels.

**Table 5.4-4
Estimated Daily Construction Emissions**

Emissions Source	Emissions (pounds/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Year 1 (mass grading, fine grading)						
Unmitigated	9	74	37	<1	886	188
Mitigated ¹	9	74	37	<1	53	15
SCAQMD Thresholds	75	100	550	150	150	55
<i>Significant Impact?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Year 2 (mass grading, fine grading, building construction)						
Unmitigated	12	88	61	<1	886	188
Mitigated ¹	12	88	61	<1	53	15
SCAQMD Thresholds	75	100	550	150	150	55
<i>Significant Impact?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Year 3 (building construction)						
Unmitigated	13	45	42	<1	4	4
Mitigated	13	45	42	<1	4	4
SCAQMD Thresholds	75	100	550	150	150	55
<i>Significant Impact?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Year 4 (building construction, paint, paving)						
Unmitigated	5	<1	<1	<1	<1	<1
Mitigated	5	<1	<1	<1	<1	<1
SCAQMD Thresholds	75	100	550	150	150	55
<i>Significant Impact?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Note: 1 – Mitigated Emissions account for implementation of Mitigation Measures AQ-1 and AQ-2, which include implementation of SCAQMD Rule 403 (Fugitive Dust).						
Source: <i>Air Quality Impact Analysis – Mancara at Robinson Ranch</i> , Environmental Science Associates, December 2008, updated January 13, 2009.						

Mitigation Measures:

AQ-1 Prior to issuance of any grading permit, the Director of Public Works and the Building Official shall confirm that the Grading Plan and specifications stipulate that the General Contractors shall ensure the following:



- Implement a fugitive dust control program pursuant to the provisions of South Coast Air Quality Management District (SCAQMD) Rule 403.
- Implement the Rule 403 Table 2 and Table 3 control action for each on-site source of dust. Prepare daily records of control actions, implementation and maintain recordkeeping on-site for the duration of the project and then give the records to the owner to store for three years.
- Notify SCAQMD in writing by submitting a large operation notification (Form 403N) with the appropriate site map within seven days of qualifying as a large operation. Rule 403 also requires a large operation to notify the SCAQMD 30 days after no longer qualifying as a large operation by submitting a project completion form (Form 403C). If the project lasts more than one year, the project shall submit a Statement of No Change (Form 403NC).
- Install and comply with all storm water pollution prevention plan (SWPPP) requirements on the approved Erosion Plan. A 30- by 50-foot gravel pad (one-inch diameter crushed rock at least six-inches deep) with wheel shaker plates shall be installed at each of the site entrances. A silt fence at the property line and gravel bags at areas where water may leave the site shall be installed.
- Apply SCAQMD approved dust suppressants (e.g., polymer emulsion) to actively disturbed areas upon completion of clearing and grading and at the end of each work day. Plastic sheeting may also be used at the end of each work day.
- Water disturbed sites three times daily (locations where grading is to occur shall be thoroughly watered prior to earth moving) and replace ground cover in disturbed areas as quickly as possible.
- All trucks hauling dirt, sand, soil, or other loose materials shall be tarped with a fabric cover and shall maintain a freeboard height of 12 inches and traffic speeds on all unpaved roads shall be limited to 15 miles per hour (mph) or less.
- Trucks and vehicles in loading and unloading queues shall turn their engines off when not in use to reduce vehicle emissions; all construction vehicles shall be prohibited from idling in excess of five minutes, both on- and off-site.
- Require minimum soil moisture of 12 percent for earthmoving by use of a moveable sprinkler system or a water truck. Moisture content shall be verified by lab sample or moisture probe.
- Construction emissions shall be scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.
- Maintain and operate construction equipment to minimize exhaust emissions; all construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.
- Project signs shall be posted within 50 feet at each entrance. This includes not only the grading contractor but also all contractors following the grading operation. Rule 403 is not limited to grading only but remains effective and enforceable until the project is completed.



AQ-2 Prior to, during, and following completion of construction activities, the project applicant and/or construction contractor shall adhere to the 12 recommendations outlined in the *Work Plan for Air Quality/Earthwork Tentative Tract No. 063022 (dated November 19, 2008, as amended and updated [refer to Appendix H2 of the Environmental Impact Report])*. Recommendations shall be noted on project grading plans and building specifications. Grading plans and building specifications shall be reviewed and approved by the Building Official.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

LONG-TERM OPERATIONAL IMPACTS

- **DEVELOPMENT OF THE PROPOSED PROJECT COULD RESULT IN LONG-TERM OPERATIONAL AIR POLLUTANT EMISSIONS IMPACTS.**

Level of Significance Before Analysis and Mitigation: Less Than Significant Impact.

Impact Analysis: Operational emissions generated primarily by mobile sources would result from daily activities on the project site. As the project site is currently undeveloped, implementation of the proposed project would result in new traffic trips to and from the project site. There would also be a slight increase in emissions from operations due to energy use and maintenance activities (i.e., building maintenance, painting, and landscaping equipment). Criteria pollutant emissions from project operations were calculated using the URBEMIS 2007 emissions inventory model, which multiplies an estimate of daily VMT by applicable EMFAC2007 emissions factors.

The URBEMIS model calculates emissions based on the proposed land uses (99 single-family residential units) and the daily trips assumed in the proposed project's traffic study (947 new daily trips). Detailed operational assumptions and URBEMIS outputs for project operations are provided in Appendix H1. As shown in Table 5.4-5, Operational Emissions, operational emissions resulting from the proposed project would not exceed regional SCAQMD emission thresholds. Thus, operational emissions associated with the proposed project are considered less than significant and would not result in a significant long-term air quality impact.

**Table 5.4-5
Operational Emissions**

Emissions Source	Emissions (pounds/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	7	2	5	<1	<1	<1
Mobile Source	8	11	101	<1	17	4
Stationary Source	<1	<1	<1	<1	<1	<1
Total	15	13	106	1	17	4
SCAQMD Thresholds	55	55	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Source: *Air Quality Impact Analysis – Mancara at Robinson Ranch*, Environmental Science Associates, December 2008, updated January 13, 2009.



Mitigation Measures: No mitigation measures are required.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

LOCALIZED AIR QUALITY IMPACTS

- **CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT COULD RESULT IN TEMPORARY IMPACTS TO LOCALIZED AIR QUALITY THAT WOULD VIOLATE AN EXISTING OR PROJECTED AIR QUALITY STANDARD.**

Level of Significance Before Analysis and Mitigation: Potentially Significant Impact.

Impact Analysis:

Localized Construction Emissions

The localized effects from daily emissions were evaluated using the SCAQMD's Localized Significance Threshold (LST) methodology, which is designed to determine potential impacts to nearby sensitive receptors. This methodology recommends the use of dispersion modeling when evaluating impacts from sites that are larger than five acres in size. Therefore, the U.S. EPA approved dispersion model AERMOD was used to determine construction impacts on localized air quality. Meteorological data from the Newhall monitoring station was obtained from the SCAQMD's website for use in AERMOD. Since opaque cloud cover is not available for this site, data from the Los Angeles International Airport was used to supplement this data for use in the model. Source and receptor elevations were derived from the 7.5 minute Mint Canyon digital elevation model.

Emissions from construction equipment were modeled as a series of volume sources with a release height of five meters as suggested in the SCAQMD's LST guidance document. Fugitive dust emissions were modeled as area sources with an initial vertical dimension of one meter. Due to the size of the site, emissions were modeled assuming that activities would occur within subareas of approximately 10 acres. Subareas closest to sensitive receptors were modeled to determine localized impacts from construction emissions.

Daily emission rate estimates generated by URBEMIS were used in this analysis. However, the emissions from worker and vendor trips were not included as part of this analysis since these emissions are made on a regional rather than local scale. As shown in Table 5.4-6, Localized Pollutant Concentrations from Construction Emissions, the concentrations of NO₂, CO, PM₁₀ and PM_{2.5} would not exceed applicable thresholds. Additionally, implementation of Mitigation Measures AQ-1 and AQ-2 would further reduce construction emissions. Therefore, impacts would be less than significant in this regard.



**Table 5.4-6
Localized Pollutant Concentrations from Construction Emissions**

Concentrations	NO ₂	CO		PM ₁₀	PM _{2.5}
	1-Hour	1-Hour	8-Hour	24-Hour	24-Hour
Project generated	0.05 ppm	0.1 ppm	0.01 ppm	10.3 µg/m ³	3.1 µg/m ³
Background	0.08 ppm	2.0 ppm	1.2 ppm	N/A	N/A
Total (project + background)	0.13 ppm	2.1 ppm	1.21 ppm	N/A	N/A
<i>Localized Significance Threshold</i>	<i>0.18 ppm</i>	<i>20.0 ppm</i>	<i>9.0 ppm</i>	<i>10.4 µg/m³</i>	<i>10.4 µg/m³</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Notes: ppm = parts per million and µg/m³ = micrograms per cubic meter.
Source: *Air Quality Impact Analysis – Mancara at Robinson Ranch*, Environmental Science Associates, December 2008, updated January 13, 2009.

Localized Operational Emissions

Localized operational emissions represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area. It should be noted that localized operational emissions at the project site are only compared to area source emissions since the SCAQMD methodology does not account for mobile source emissions. Rather, performing a CO hotspots analysis assesses localized mobile source impacts, which is presented in a separate discussion below. Emissions from project operations were estimated using the URBEMIS 2007 emissions model. Although the project site is greater than five acres, the localized operational emissions have been conservatively compared to the LSTs for a five-acre site, at 25 meters from sensitive uses.

As indicated in *Table 5.4-7, Localized Pollutant Concentrations from Operational Emissions*, the localized area source emissions from the proposed project would not exceed the SCAQMD thresholds. Based on the SCAQMD LST methodology, the primary emissions from operational activities include emissions from on-site stationary sources. As shown in *Table 5.4-7*, localized area source emissions from the proposed project are below the significance criteria. Thus, a less than significant would result in this regard; however implementation of Mitigation Measures AQ-1 and AQ-2 ensure that these impacts remain at a less than significant level.

**Table 5.4-7
Localized Pollutant Concentrations from Operational Emissions**

Emissions Source	Pollutant (pounds/day) ¹			
	NO _x	CO	PM ₁₀	PM _{2.5}
Area Source Emissions	2	5	<1	<1
Localized Significance Threshold ²	246	1,644	3	2
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Notes:
1. Emissions calculated using the URBEMIS 2007 Version 9.2.4 Computer Model as recommended by the SCAQMD.
2. The Local Significance Threshold was determined using Appendix C of the SCAQMD Final Localized Significant Threshold Methodology guidance document for pollutants NO_x, CO, PM₁₀, and PM_{2.5}. The Localized Significance Threshold is based on a conservative acreage of 5 acres, the source receptor area (SRA 13), and distance to nearest sensitive receptor (25 meters).



Mitigation Measures: Refer to Mitigation Measures AQ-1 and AQ-2. No additional mitigation measures are required.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

CARBON MONOXIDE HOTSPOTS

- **DEVELOPMENT OF THE PROPOSED PROJECT COULD RESULT IN MOBILE SOURCE EMISSIONS THAT COULD INCREASE CARBON MONOXIDE CONCENTRATIONS AT INTERSECTIONS IN AND AROUND THE PROJECT SITE.**

Level of Significance Before Analysis and Mitigation: Less Than Significant Impact.

Impact Analysis: The highest CO concentrations are generally found within close proximity to congested intersection locations. Therefore, proposed project-generated traffic during the operational phase of the proposed project would have the potential to increase local area CO concentrations. Under typical meteorological conditions, CO concentrations tend to decrease as distance from the emissions source (i.e., congested intersections) increase. SCAQMD recommends a hot-spot evaluation of potential localized CO impacts when volume-to-capacity ratios are increased by two percent at intersections with a LOS of D or worse. The SCAQMD also recommends a CO hot-spot evaluation when an intersection worsens in LOS, beginning when LOS changes from LOS C to LOS D. To present potential CO impacts in areas where traffic conditions would result in LOS D or worse, localized CO impacts are quantified as shown in Table 5.4-8, Localized CO Concentrations. The detailed modeling results are provided in Appendix H1.

**Table 5.4-8
Localized CO Concentrations**

Intersection	CO Background Concentration (ppm)	CO With Project Concentrations (ppm)	Significance Criteria (ppm)	Significant Impact?
Sand Canyon Road/Lost Canyon Road				
1-Hour Concentration	7.7	8.1	20	No
8-Hour Concentration	5.3	5.6	9.0	No
Sand Canyon Road/SR-14 NB Ramps				
1-Hour Concentration	6.5	8.0	20	No
8-Hour Concentration	4.6	5.5	9.0	No
Sand Canyon Road/Soledad Canyon Road				
1-Hour Concentration	7.3	9.2	20	No
8-Hour Concentration	5.1	6.2	9.0	No
SR-14 SB Ramps/Soledad Canyon Road				
1-Hour Concentration	7.1	8.2	20	No
8-Hour Concentration	5.0	5.6	9.0	No
Source: <i>Air Quality Impact Analysis – Mancara at Robinson Ranch</i> , Environmental Science Associates, December 2008, updated January 13, 2009.				



As seen in *Table 5.4-8*, CO concentrations near these intersections would not exceed the national and State ambient air quality standards for CO with implementation of the proposed project. Therefore, project implementation would not expose any sensitive receptors located in close proximity to these intersections to substantial localized pollutant concentrations. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

ODORS

- **DEVELOPMENT OF THE PROPOSED PROJECT COULD CREATE OBJECTIONABLE ODORS AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE.**

Level of Significance Before Analysis and Mitigation: Less Than Significant Impact.

Impact Analysis: According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors. While the proposed project does include a restaurant, compliance with industry standard odor control practices, SCAQMD Rule 402 (Nuisance), and SCAQMD Best Available Control Technology Guidelines, as applicable, would reduce potential objectionable odor impacts during project operations to a less than significant level.

Potential sources that may emit odors during construction activities include asphalt paving and the use of architectural coatings and solvents. SCAQMD Rule 1108 limits the amount of VOCs from cutback asphalt and Rule 1113 reduces VOCs from architectural coatings and solvents. Construction activities or use of construction materials would not create a significant level of objectionable odors with adherence to SCAQMD Rules. Therefore, potential odor impacts during short-term construction would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

5.4.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE AIR QUALITY IMPACTS.**

Level of Significance Before Analysis and Mitigation: Potentially Significant Impact.



Impact Analysis: The SCAQMD neither recommends quantified analyses of cumulative construction or operational emissions, nor does it provide separate methodologies or thresholds of significance to be used to assess cumulative construction impacts. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed using the same significance criteria as those for project-specific impacts. Therefore, individual development projects that generate construction-related or operational emissions that exceed the SCAQMD recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is nonattainment.

Short-Term Construction Emissions

Based on the construction emissions analysis above, construction-related emissions associated with the proposed project would be less than significant with implementation of recommended Mitigation Measures AQ-1 and AQ-2. Construction of future buildings and infrastructure would be required to comply with the applicable SCAQMD rules and regulations. These measures call for the maintenance of construction equipment, the use of non-polluting and non-toxic building equipment, and minimizing fugitive dust. Therefore, construction impacts would not be considered "cumulatively considerable."

Long-Term Operational Emissions

Development associated with the proposed project, combined with other anticipated cumulative development in the region would contribute to a cumulative annual increase in regional air pollutant emissions. Table 5.4-5 depicts the estimated mobile and stationary source emissions associated with the proposed project. As shown in Table 5.4-5, the emissions from development of the proposed project would not exceed the SCAQMD thresholds for criteria pollutants. In accordance with SCAQMD methodology, any project that cannot be mitigated to a level of less than significant is also significant on a cumulative basis. Therefore, the cumulative operational emissions associated with the proposed project are less than significant.

Mitigation Measures: Refer to Mitigation Measures AQ-1 and AQ-2. No additional mitigation measures are required.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

5.4.6 SIGNIFICANT UNAVOIDABLE IMPACTS

All potentially significant impacts are either at less than significant levels or can be reduced to less than significant with implementation of applicable mitigation measures. As such, implementation of the proposed project would not result in any significant unavoidable air quality impacts.



5.4.7 SOURCES CITED

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