4. ENVIRONMENTAL IMPACT ANALYSIS
2. AIR QUALITY

4.2.1 INTRODUCTION

This section examines the degree to which the Proposed Project may result in significant environmental impacts with respect to air quality, including short-term construction emissions occurring from activities such as site grading and haul truck trips, and long-term effects related to the changes in the roadway and vehicular circulation system. The analysis contained herein focuses on air pollution from two perspectives: maximum daily emissions and pollutant concentrations. As used in this study, the term "emissions" refers to the quantity of pollutant measured in pounds per day (ppd). The term "concentrations" refers to the amount of pollutant material per volumetric unit of air as measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter (µg/m3).

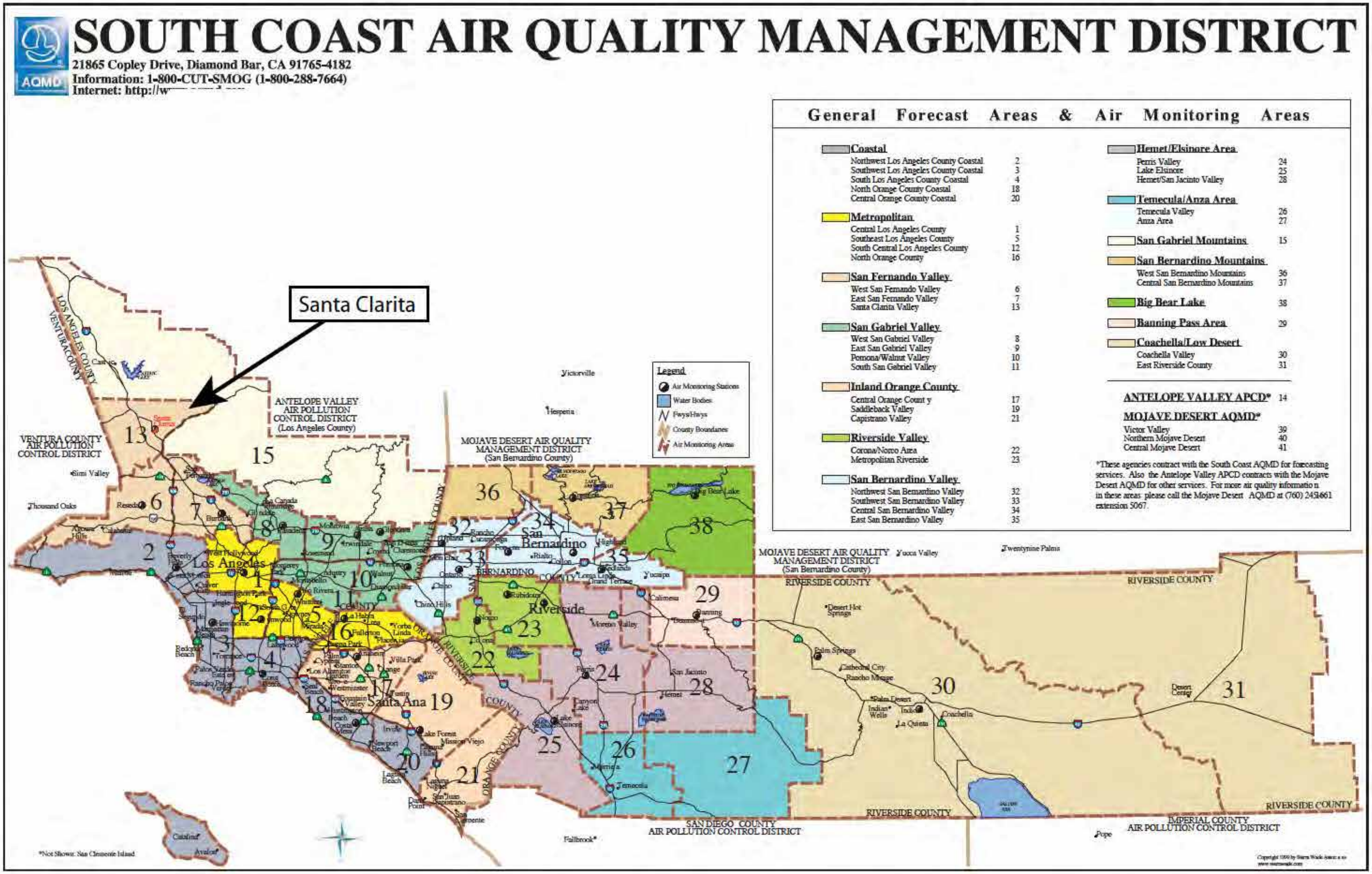
Documents used in the preparation of this section include, but are not limited to, the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook (1993), the 2016 Air Quality Management Plan (AQMP), the Air Quality Element of the City of Santa Clarita General Plan, and other applicable federal and state regulations and guidelines.

4.2.2 ENVIRONMENTAL SETTING

The Project Site is located within the South Coast Air Basin (Basin). As shown in Figure 4.2-1, SCAQMD Air Basin and SRA Location Map, on page 4.2-2, the Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The City of Santa Clarita is located within source receptor area (SRA) 13. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Basin is primarily influenced by a wide range of emissions sources (*e.g.,* dense population centers, heavy vehicular traffic, and industries) and meteorology.

Air Pollutants

Air pollutant emissions within the Basin are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point sources include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products such as lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft,



Source: South Coast Air Quality Management District.

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Figure 4.2-1
SCAQMD Air Basin and Source Receptor Areas

ships, trains, race cars, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health and welfare. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, that have been adopted for them. The national and state standards have been set at levels considered safe to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The criteria air pollutants that are most relevant to current air quality planning and regulation in the Basin include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). In addition, toxic air contaminants (TACs) are of concern in the Basin. The characteristics of each of these pollutants are briefly described below.

- *O_3* is a highly reactive and unstable gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

- *CO* is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest on winter mornings, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike O_3, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- *PM_{10}* and *$PM_{2.5}$* consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.

- *NO_2* is a nitrogen oxide compound that is produced by the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered), as well as point sources, especially power plants. Of the seven types of NO_x compounds, NO_2 is the most abundant in the atmosphere. Because ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitors.

- *SO_2* is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_x).

- *Pb* occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne Pb in the Basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so the majority of such combustion emissions are associated with off-road vehicles such as racecars. However, because leaded gasoline was emitted in large amounts from vehicles when leaded gasoline was used for on-road motor vehicles, Pb is present in many urban soils and can be re-suspended in the air. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and the use of secondary lead smelters.

- *TACs* refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than "criteria" pollutants in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effects on health tend to be felt on a local rather than regional scale.

Health Effects of Criteria Pollutants

The health effects of the criteria pollutants (i.e., O_3, CO, PM_{10} and $PM_{2.5}$, NO_2, SO_2, and Pb) and TACs are described below.[1] In addition, a list of the harmful effects of each criteria pollutant is provided in Table 4.2-1, Summary of Health Effects of Criteria Pollutants.

Ozone (O_3)

Individuals exercising outdoors, children and people with preexisting lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible sub-groups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California

[1] *The descriptions of the health effects of the criteria pollutants are taken from Appendix C (Health Effects of Ambient Air Pollutants) of the SCAQMD's "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning" document.*

Table 4.2-1
Summary of Health Effects of Criteria Pollutants

Pollutants	Primary Health and Welfare Effects
Ozone (O_3)	• Aggravation of respiratory and cardiovascular diseases • Reduced lung function • Increased cough and chest discomfort
Carbon Monoxide (CO)	• Aggravation of some heart disease (angina) • Reduced tolerance for exercise • Impairment of mental function • Impairment of fetal development • Death at high levels of exposure
Particulate Matter and Fine Particulate Matter (PM_{10} and $PM_{2.5}$)	• Reduced lung function • Aggravation of respiratory and cardio-respiratory diseases • Increases in mortality rate • Reduced lung function growth in children
Nitrogen Dioxide (NO_2)	• Aggravation of respiratory illness
Sulfur Dioxide (SO_2)	• Aggravation of respiratory diseases (asthma, emphysema) • Reduced lung function
Lead (Pb)	• Behavioral and hearing disabilities in children • Nervous system impairment

Source: SCAQMD, Guidance Document for Air Quality Issues in General Plans and Local Planning, 2005.

can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are also associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities. Ozone exposure under exercising conditions is known to increase the severity of the above mentioned observed responses. Animal studies suggest that exposures to a combination of pollutants that include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide (CO)

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart.

Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Reduction in birth weight and impaired neurobehavioral development has been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include pre-term births and heart abnormalities. Additional research is needed to confirm these results.

Particulate Matter (PM_{10} and $PM_{2.5}$)

A consistent correlation between elevated ambient particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and lung cancer.

Daily fluctuations in fine particulate matter concentration levels have also been related to hospital admissions for acute respiratory conditions in children, school and kindergarten absences, a decrease in respiratory lung volumes in normal children, and increased medication use in children and adults with asthma. Recent studies show that lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of PM_{10} and $PM_{2.5}$.

Nitrogen Dioxide (NO_2)

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy individuals. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO_2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of O_3 and NO_2.

Sulfur Dioxide (SO_2)

A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2.

Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particulate matter show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or whether one pollutant alone is the predominant factor.

Sulfates (SO_4)

Most of the health effects associated with fine particulate matter and SO_2 at ambient levels are also associated with SO_4. Thus, both mortality and morbidity effects have been observed with an increase in ambient SO_4 concentrations. However, efforts to separate the effects of SO_4 from the effects of other pollutants generally have not been successful.

Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure. Animal studies suggest that acidic particles such as sulfuric acid aerosol and ammonium bisulfate are more toxic than non-acidic particles like ammonium sulfate. Whether the effects are attributable to acidity or to particles remains unresolved.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence levels. In adults, increased lead levels are associated with increased blood pressure.

Lead poisoning can cause anemia, lethargy, seizures, and death. It appears that there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early-age environmental exposure, and elevated blood lead levels can occur due to the breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland), and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.

Toxic Air Contaminants (TACs)

TACs are a broad class of compounds known to cause or contribute to cancer or non-cancer health effects such as birth defects, genetic damage, and other adverse health effects. Adverse effects from TACs may be both chronic and acute on human health. Acute health effects are attributable to sudden exposure to high quantities of air toxics. These effects include nausea, skin irritation, respiratory illness, and, in some cases, death. Chronic health effects can result from low-dose, long-term exposure from routine releases of air toxics. The effect of major concern for this type of exposure is cancer, which typically requires a period of 10 to 30 years after exposure to develop.

TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust, which is comprised of a complex mixture of gases, vapors, and fine particles, is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified by the CARB as TACs, and are listed as carcinogens either under California's Proposition 65 or under the federal Hazardous Air Pollutants programs. The United States Environmental Protection Agency (U.S. EPA) has adopted Ultra Low Sulfur Diesel (ULSD) fuel standards to reduce diesel particulate matter. As of December 10, 2010, only ULSD fuel is available for highway use nationwide. In California, which was an early adopter of ULSD fuel and engine technologies, 100 percent of the diesel fuel sold – downstream from refineries, up to and including fuel terminals that store diesel fuel – has been ULSD fuel since July 15, 2006.

Multiple Air Toxics Exposure Study

In May 2015, the SCAQMD published the MATES IV, Multiple Air Toxics Exposure Study (the "MATES IV Study"), which provides a comprehensive regional air toxics study for the entire South Coast Air Basin. The MATES IV Study is an update to previous air toxics studies in the Basin and is part of the SCAQMD Governing Board Environmental Justice Initiative. It consists of a one-year monitoring study, an updated air toxic emissions inventory, as well as updates to monitored and modeled exposures and risk estimated from air toxics. The objective of the Study is to update the characterization of ambient air toxic concentrations and potential exposures to air toxics in the Basin.

The MATES IV Study concluded that average risks throughout the Basin are dramatically reduced from previous studies. Generally, the risk from air toxics is lower near the coastline and increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports). The average carcinogenic risk Basin-wide is about 420 cases per million over a 70-year duration. This compares to about 1,400 per million in the MATES II Study, and about 1,200 per million in the MATES III Study. For comparison purposes, Table 4.2-2, Modeled Air Toxics Risk Comparisons Using the CAMx Model, below, shows the estimated population weighted risk across the Basin for the MATES III and MATES IV periods. The population weighted risk was about 57% lower compared to the MATES III period (2005).[2]

The MATES-IV interactive map, published on the SCAQMD's web site, provides model-calculated cancer risks over the Basin on a 2 km by 2 km grid overlay. Based on this geo-referenced database, TAC-related cancer risk in the Newhall area is estimated at approximately 334 per million, which is below the average Basin-wide estimate of 420 per million.

[2] *SCAQMD, Final Draft Report, Multiple Air Toxics Exposure Study IV Model Estimated Carcinogenic Risk, at page ES-3.*

Table 4.2-2
Modeled Air Toxics Risk Comparisons Using the CAMx Model

	MATES IV	MATES III	Change
Population weighted risk (per million)	367	853	-57%

Source: SCAQMD, Final Draft Report, Multiple Air Toxics Exposure Study IV Model Estimated Carcinogenic Risk, at Table ES-2.

Regulatory Setting

Air quality within the Basin is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. At the federal level air quality is governed by the Federal Clean Air Act (CAA). The CAA is administered by the U.S. EPA. In California, air quality is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CCAA is administered by the CARB at the state level and by the Air Quality Management Districts at the regional and local levels. The agencies responsible for improving the air quality within the Basin are discussed below.

Federal Standards

The U.S. Environmental Protection Agency (U.S. EPA)

The U.S. EPA is responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The U.S. EPA also has jurisdiction over emissions sources outside state waters (outer continental shelf) and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP). The SIP is a plan for each state which identifies how that state will attain and/or maintain the primary and secondary National Ambient Air Quality Standards (NAAQS) set forth in section 109 of the CAA. These plans are developed through a public process, formally adopted by the state, and submitted by the Governor's designee to the U.S. EPA. The CAA requires the U.S. EPA to review each plan and any plan revisions and to approve the plan or plan revisions if consistent with the CAA.

State Standards

California Air Resources Board (CARB)

The CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets California Ambient Air Quality Standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. In some cases, the state standards are more restrictive than the federal standards established under the CAA. Table, 4.2-3, Ambient Air Quality Standards, above, identifies the applicable state ambient air quality standards alongside the federal standards for comparison.

Measurements of ambient concentrations of the criteria pollutants are used by the U.S. EPA and the CARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with national and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in “attainment.” If the pollutant exceeds the standard, the area is classified as a “non-attainment” area. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated “unclassified.”

Off-road diesel vehicles, which include construction equipment, are also regulated by the CARB for both in-use (existing) and new engines. Four sets of standards implemented by the CARB for new off-road diesel engines, known as Tiers. Tier 1 standards began in 1996. Tiers 2 and 3 were adopted in 2000 and were more stringent than the Tier 1 standards. Tier 2 and Tier 3 standards were completely phased in by 2006 and 2008, respectively. Tier 4 standards became effective in 2011. Tier 4 emission standards will reduce particulate matter and NO_X emissions of late model cars to 90 percent below current levels.

Since off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls. On July 26, 2007, the CARB approved a regulation, the “In-Use Off-Road Diesel Fueled Fleets Regulation” to reduce emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. This regulation became effective on June 15, 2008, and sets an anti-idling limit of five minutes for all off-road vehicles 25 horsepower and up. It also establishes emission rates targets for the off-road vehicles that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. Revised in October 2016, the regulation enforced off-road restrictions on fleets adding vehicles with older tier engines, and started enforcing beginning July 1, 2014. By each annual compliance deadline, a fleet must demonstrate that it has either met the fleet average target for that year, or has completed the Best Available Control Technology requirements (BACT). Large fleets have compliance deadlines each year from 2014 through 2023, medium fleets each year from 2017 through 2023, and small fleets each year from 2019 through 2028.

Table 4.2-3
Ambient Air Quality Standards

Air Pollutant	Averaging Time	CAAQS		NAAQS	
		State Standard	Attainment Status	Federal Standard	Attainment Status
O_3	1 Hour	0.09 ppm	Non-attainment	--	Non-attainment
	8 Hour	0.07 ppm		0.070 ppm [a]	
CO	1 Hour	20.0 ppm	Attainment	35.0 ppm	Attainment
	8 Hour	9.0 ppm		9.0 ppm	
NO_2	1 Hour	0.18 ppm	Attainment	0.10 ppm	Attainment
	Annual	0.030 ppm		0.053 ppm	
SO_2 [b]	1 Hour	0.25 ppm	Attainment	0.075 ppm	Attainment
	24 Hour	0.04 ppm		0.14 ppm	
Pb	30 Day	1.5 $\mu g/m^3$	Attainment	--	Attainment
	Calendar Quarter Year	--		1.5 $\mu g/m^3$	
	Rolling 3-Month Average	--		0.15 $\mu g/m^3$	
PM_{10}	24 Hour	50 $\mu g/m^3$	Non-attainment	150 $\mu g/m^3$	Attainment
	Annual	20 $\mu g/m^3$		--	
$PM_{2.5}$	24 Hour	--	Non-attainment	35 $\mu g/m^3$	Non-attainment
	Annual	12 $\mu g/m^3$		12 $\mu g/m^3$ [c]	

Notes:

[a] *On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.75 to 0.70 ppm.*

[b] *As of June 2010, the USEPA has established an hourly air quality standard for sulfur dioxide and revoked the previous 24-hour air quality standard. With these changes, the USEPA expects to identify or designate areas not meeting the new standard by June 2012.*

[c] *The national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ effective December 14, 2012.*

Sources: CARB, Ambient Air Quality Standards, May 4, 2016, website: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, accessed May 2016, CARB: State Area Designation Maps, current as of December 2015 (state and national), website: http://www.arb.ca.gov/desig/adm/adm.htm, accessed May 2016.

Regional Standards

Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is a regional planning agency and forum for regional issues relating to transportation, the economy and community development, and the environment.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's 2008 Regional Comprehensive Plan (2008 RCP) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The 2008 RCP is a framework for decision-making for local governments, assisting them in meeting federal and state mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes through the year 2035, and beyond. The 2008 RCP is laid out much like a General Plan and organizes recommended policies into nine chapters; land use, open space and habitat, water, energy, air quality, solid waste, transportation, security and emergency preparedness, economy and education. The 2008 RCP is closely tied to the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which is summarized below.

The 2016-2040 RTP/SCS, adopted on April 7, 2016, is the culmination of a multi-year effort involving stakeholders from across the SCAG Region. The 2016-2040 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play, and how they will move around. The 2016-2040 RTP/SCS encourages strategic transportation investments that add appropriate capacity and improve critical road conditions in the region. Improved placemaking and strategic transportation investments would help to improve air quality. Based on the regional growth projections in the 2016-2040 RTP/SCS, in 2012, the City of Santa Clarita had an estimated population of approximately 202,000 persons, approximately 67,300 residences, and 73,500 jobs. By the year 2040, SCAG forecasts the City of Santa Clarita will increase to 262,200 persons (an approximate 30% increase from the year 2012), approximately 90,300 residences (an approximate 34% increase from the year 2012), and approximately 95,900 jobs (an approximate 30% increase since year 2012) citywide. These growth projections form the basis for the strategies identified in the SCAQMD's 2016 Air Quality Management Plan (AQMP).

South Coast Air Quality Management District (SCAQMD)

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with SCAG, county transportation commissions and local governments, and cooperates actively with state and federal government agencies. The SCAQMD develops air quality related rules and regulations, establishes permitting requirements, inspects emissions sources, and provides regulatory enforcement through such measures as educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources to meet federal and state ambient air quality standards. SCAQMD has responded to this requirement by preparing a series of AQMPs. The most recent AQMP was adopted by the Governing Board of the South Coast Air Quality Management District (SCAQMD) on March 3, 2017 ("2016 AQMP"). The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gasses and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and incentives that encourage the accelerated transition to cleaner vehicles, and the modernization of buildings and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy. In addition, the Southern California Association of Governments (SCAG) recently approved their 2016 RTP/SCS that include transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained within baseline emissions inventory in the 2016 AQMP. The transportation strategy and transportation control measures (TCMs), included as part of the 2016 AQMP and SIP for the South Coast Air Basin, are based on SCAG's 2016 RTP/SCS and Federal Transportation Improvement Program (FTIP). For purposes of assessing a project's consistency with the AQMP, projects that are consistent with the growth forecast projections of employment and population forecasts identified in the RTP/SCS are considered consistent with the AQMP, since the growth projections contained in the RTP/SCS form the basis of the land use and transportation control portions of the AQMP.

The future air quality levels projected in the 2016 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG's 2016-2040 RTP/SCS. The 2016 AQMP also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation in accordance with SCAQMD and local jurisdiction regulations, which are designed to address air quality impacts and pollution control measures. The 2016 AQMP incorporates new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling. General development projects would be affected in the form of any applicable rules and regulations – if any – that are adopted as a result of the 2016 AQMP. While economic growth for the region is desirable, it presents a challenge to air quality improvement efforts since the projected growth could offset the impressive progress made in reducing VOC, NOx, and PM2.5 emissions through adopted regulations. Meeting the U.S. EPA's current and more-stringent future air quality standards will require the continuation of emission reduction efforts from all levels of government.

In addition to the AQMP, the SCAQMD has prepared the *CEQA Air Quality Handbook* (1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects and plans proposed in the Basin. The AQMD is in the process of developing an *"Air Quality Analysis Guidance Handbook"* to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993.

Among the SCAQMD rules applicable to the Proposed Project are Rule 403 (Fugitive Dust), Rule 1108 (Cutback Asphalt) and Rule 1108.1 (Emulsified Asphalt), and Rule 1120 (Asphalt Pavement Heaters). Rule 403 requires the use of stringent best available control measures to minimize PM_{10} emissions during grading and construction activities. Rules 1108 and 1108.1 would limit the VOC content of asphalt materials. Rule 1120 would place restrictions on the use of asphalt pavement surface heaters and asphalt heater-remixers for the purpose of maintaining, reconditioning, reconstructing, or removing asphalt pavement. Additional details regarding these rules are presented below.

- **Rule 403 (Fugitive Dust):** This rule requires fugitive dust sources to implement Best Available Control Measures for all sources and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

- **Rule 1108 (Cutback Asphalt):** This rule restricts the use of any cutback asphalt containing more than 0.5 percent by volume of organic compounds which evaporate at 260 °C (500 °F) or lower. Rule 1108 is intended to reduce VOC emissions from the application of asphalt.
- **Rule 1108.1 (Emulsified Asphalt):** This rule restricts the use of any emulsified asphalt containing organic compounds which evaporate at 260 °C (500 °F) or lower. Rule 1108.1 is intended to reduce VOC emissions from the application of asphalt.
- **Rule 1120 (Asphalt Pavement Heaters):** This rule restricts the use of asphalt pavement surface heaters or asphalt heater remixer for the purpose of maintaining, reconditioning, reconstructing or removing asphalt pavement. This rule is intended to reduce smoke and emissions which contain sulfur, VOCs, and other TACs.

Local Regulations

Local governments, such as the City of Santa Clarita, share the responsibility to implement or facilitate some of the control measures of the AQMP. These governments have the authority to reduce air pollution through local policies and land use decision-making authority. Specifically, local governments are responsible for the mitigation of emissions resulting from land use decisions and for the implementation of transportation control measures as outlined in the AQMP. The AQMP assigns local governments certain responsibilities to assist the SoCAB in meeting air quality goals and policies. In general, the first step towards assigning a local government's responsibility is accomplished by identifying the air quality goals, policies, and implementation measures in its general plan. The City of Santa Clarita has done this through its proposed General Plan Conservation and Open Space Element.

Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality, by requiring such improvements as bus turnouts, energy-efficient streetlights and synchronized traffic signals.[3] In accordance with the CEQA requirements and the CEQA review process, local governments assess air quality impacts, require mitigation of potential air quality impacts by conditioning discretionary permits, and monitor and enforce implementation of such mitigation.

Ambient Air Quality Conditions

Existing Regional Air Quality

Ambient air quality is determined primarily by the type and amount of pollutants emitted into the atmosphere, as well as the size, topography, and meteorological conditions of a geographic area. The Air Basin has low mixing heights and light winds, which help to accumulate air pollutants. The most current average daily emissions inventory for the entire Basin and the Los Angeles County portion of the Basin is summarized in Table 4.2-4, 2012 Estimated Annual Average Emissions.[4] As shown, exhaust emissions from mobile sources generate the majority of ROG, CO, NO_x, and SO_x emissions in the Basin and the Los Angeles County portion of the Basin. Area-wide sources generate the most airborne particulates (i.e., PM_{10} and $PM_{2.5}$) in both the Basin and Los Angeles County.

[3] *South Coast Air Quality Management District, CEQA Air Quality Handbook, (1993) 2-2.*
[4] *The estimated regional annual average emissions for 2013 through 2014 have not yet been published.*

Table 4.2-4
2012 Estimated Annual Average Emissions

Emissions Source	2012 Emissions in Tons per Day [a]					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
South Coast Air Basin						
Stationary (Point) Sources	104.3	48.5	55.2	10.1	20.8	13.6
Area-wide Sources	122.4	21.8	102.2	1.0	96.1	32.4
Mobile Sources	239.8	441.8	2,114.4	6.6	36.7	22.4
Natural (non-anthropogenic) Sources	164.5	4.4	301.1	2.3	30.1	25.5
Total Emissions	630.9	516.5	2,572.9	20.0	183.7	94.0
Los Angeles County - South Coast Air Basin						
Stationary (Point) Sources	68.27	40.88	42.21	9.26	22.74	12.05
Area-wide Sources	75.30	13.34	47.46	0.47	55.64	18.34
Mobile Sources	143.73	300.79	1,316.89	6.5	22.87	14.26
Total Emissions	287.29	355.0	1,406.57	16.22	101.25	44.66

Note: Data for 2013 through 2016 have not yet been published.
Sources: California Air Resources Board, Almanac Emission Projection Data (published in 2013), website: http://www.arb.ca.gov/ei/emissiondata.htm, accessed May 2016.

Existing Local Air Quality

The SCAQMD divides the Basin into 38 source receptor areas (SRAs) in which 38 monitoring stations track the various concentrations of air pollutants in the region. As shown in Figure 4.1.1, SCAQMD Air Basin and SRA Location Map, the Project Site is located within SRA 13, which covers the Santa Clarita Valley. SCAQMD air quality monitoring Station No. 090 is located at 22224 Placerita Canyon Road and is located within the boundaries of the Project Site's northern alignment of Dockweiler Drive extending to Arch Street. This station currently monitors emission levels of CO, NO_2, O_3, PM_{10}, $PM_{2.5}$, and VOC, Table 4.2-5, Summary of Ambient Air Quality in the Project Vicinity, identifies the national and state ambient air quality standards for the relevant air pollutants, along with the ambient pollutant concentrations that were measured for SRA 13 at the SCAQMD Station No. 090 from 2010 to 2013.[5]

[5] *The most current air quality data available pertaining to ambient pollutant concentrations over a three-year period provided by the SCAQMD is from 2010 to 2013.*

Table 4.2-5
Summary of Ambient Air Quality in the Project Vicinity

Air Pollutants Monitored Within SRA 13 Santa Clarita Valley Area	Year			
	2012	2013	2014	2015
O_3				
Maximum 1-hour concentration measured	0.134 ppm	0.134 ppm	0.137 ppm	0.126 ppm
Number of days exceeding national 0.12 ppm 1-hour standard (old)	6	2	2	1
Number of days exceeding State 0.09 ppm 1-hour standard	45	30	32	23
Maximum 8-hour concentration measured	0.112 ppm	0.104 ppm	0.110 ppm	0.108 ppm
Number of days exceeding national 0.075 ppm 8-hour standard (revised 8-hour ozone standard effective May 27, 2008)	57	40	45	37
Number of days exceeding State 0.07 ppm 8-hour standard	81	58	65	52
CO				
Maximum 1-hour concentration measured	--	--	3.0 ppm	1.2 ppm
Maximum 8-hour concentration measured	1.1 ppm	0.8 ppm	1.2 ppm	0.9 ppm
NO_2				
Maximum 1-hour concentration measured	66.1 ppb	65.4 ppb	57.7 ppb	64.6 ppb
Annual average	13.6 ppb	14.4 ppb	12.7 ppb	11.8 ppb
Does measured annual average exceed national 53.4 ppb annual average standard?	No	No	No	No
Does measured annual average exceed State 30 ppb annual average standard?	No	No	No	No
PM_{10}				
Maximum 24-hour concentration measured	37 $\mu g/m^3$	43 $\mu g/m^3$	47 $\mu g/m^3$	41 $\mu g/m^3$
Number of days exceeding national 150 $\mu g/m^3$ 24-hour standard	0	0	0	0
Number of days exceeding State 50 $\mu g/m^3$ 24-hour standard	0	0	0	0
Annual Arithmetic Mean (AAM)	19.6 $\mu g/m^3$	21.6 $\mu g/m^3$	23.2 $\mu g/m^3$	18.4 $\mu g/m^3$
Does measured AAM exceed State 20 $\mu g/m^3$ AAM standard?	No	Yes	Yes	No

Notes: ppm = parts by volume per million molecules of air; ppb = parts per billion per billion molecules of air; $\mu g/m^3$=micrograms per cubic meter.
Ambient air quality data for the year 2016 have not been published.
Source: SCAQMD, Historical Data by Year, website: http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year, accessed June 2017.

Localized Carbon Monoxide Emissions

The SCAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating localized pollutant concentrations at sensitive receptors near congested roadways and intersections. For this analysis, localized CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and widely accepted by the SCAQMD for CEQA based analyses. The simplified procedure is intended as a screening analysis, which identifies a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations. The emission factors used in the analysis are from the latest CARB Emission Factors (EMFAC) model, EMFAC2011.

SCAQMD recommends an evaluation of potential localized CO impacts when volume to capacity (V/C) ratios are increased by two percent or more at intersections with a level of service (LOS) of C or worse, or when LOS changes from an A, B, or C to a D or worse. As shown in the Project Traffic Study, this criteria was met at 10 intersections under the Future With Project scenario, and 6 intersections under the Existing With Project scenario. Thus, existing CO concentrations have been estimated for all 10 corresponding intersections. The results of the existing CO concentration calculations are presented in Table 4.2-6, Existing (2015) Localized Carbon Monoxide Concentrations, for representative receptors located distances of 25 and 50 feet from each roadway. These sensitive receptor locations were selected because they represent locations where a person may be living or working for one to eight or more hours at a time. The national 1-hour CO ambient air quality standard is 35.0 ppm, and the State 1-hour CO ambient air quality standard is 20.0 ppm. The 8-hour national and State standards for localized CO concentrations are 9.0 ppm. As shown in Table 4.2-6, existing CO concentration levels at the study intersections currently do not exceed the national and State 1-hour and 8-hour CO standards.

Table 4.2-6
Existing Carbon Monoxide Concentrations

Intersection	Localized CO Concentrations					
	Roadway Edge		25 Feet		Exceed Standard?	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
1. Sierra Highway and SR-14 Southbound Ramps	3.4	1.8	2.9	1.4	No	No
2. Sierra Highway and Placerita Canyon Road	3.2	1.7	2.8	1.4	No	No
4. Sierra Highway and Dockweiler Drive	3.4	1.8	2.8	1.4	No	No
5. SR-14 Southbound Ramps and Newhall Avenue	3.6	1.9	3.0	1.5	No	No
6. Sierra Highway and Newhall Avenue	3.7	2.0	3.2	1.6	No	No
8. Valle Del Oro and Dockweiler Drive	2.4	1.1	2.2	1.0	No	No
11. Newhall Avenue and Lyons Avenue	2.7	1.2	2.4	1.0	No	No
12. Railroad Avenue and Lyons Avenue	3.5	1.9	3.0	1.5	No	No
15. Main Street and Newhall Avenue	3.5	1.8	2.8	1.4	No	No
16. Arch Street and 12th Street/Placerita Cyn Road	2.4	1.1	2.2	1.0	No	No

Source: Traffic data from David Evans & Associates Inc., Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, May 2, 2016. See Appendix C for Air Quality Calculation Worksheets.

Sensitive Receptors

Local governments have a responsibility for determining land use compatibility in the case of sensitive receptors. For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as residence, hospital, convalescent facility were it is possible that an individual could remain for 24 hours.[6] The SCAQMD has also defined the term sensitive receptor to include private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers, and health facilities such as hospitals or retirement and nursing homes, long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.[7] According to the CEQA Air Quality Handbook (1993), ¼-

6 *SCAQMD, Final Localized Significance Threshold Methodology, June 2003, Revised July 2008. (at p. 3-2)*

7 *SCAQMD, Rule 1470 –Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines, amended May 4, 2012.*

mile is the distance which the SCAQMD uses in evaluating impacts upon sensitive receptors.[8] The following land uses have been identified as sensitive receptors within ¼ mile of the Project Site the Project area:

1) Single-family homes in Placerita Canyon on Aden Avenue (between Placeritos Boulevard and the Project Site), Placerita Canyon Road (between Arch Street and Meadview Avenue), Placeritos Boulevard (between Arch Street and Aden Avenue), Hacienda Lane (south of Oak Orchard Road), and Alderbrook Drive (south of Oak Orchard Road);
2) The Master's University Dormitory housing;
3) Single- and multi-family residential homes north of 4th Street and east of Railroad Avenue;
4) Single- and multi-family residential homes northwest of the Project Site generally bounded by Railroad Avenue to the east, 15th Street to the north, Newhall Street to the east, and 11th Street to the south; and
5) Newhall Elementary School.

A radius map identifying these sensitive receptors in proximity to the Project Site is presented in Figure 4.2-2, Air Quality Sensitive Receptor Map.

4.2.3 ENVIRONMENTAL IMPACTS

Thresholds of Significance

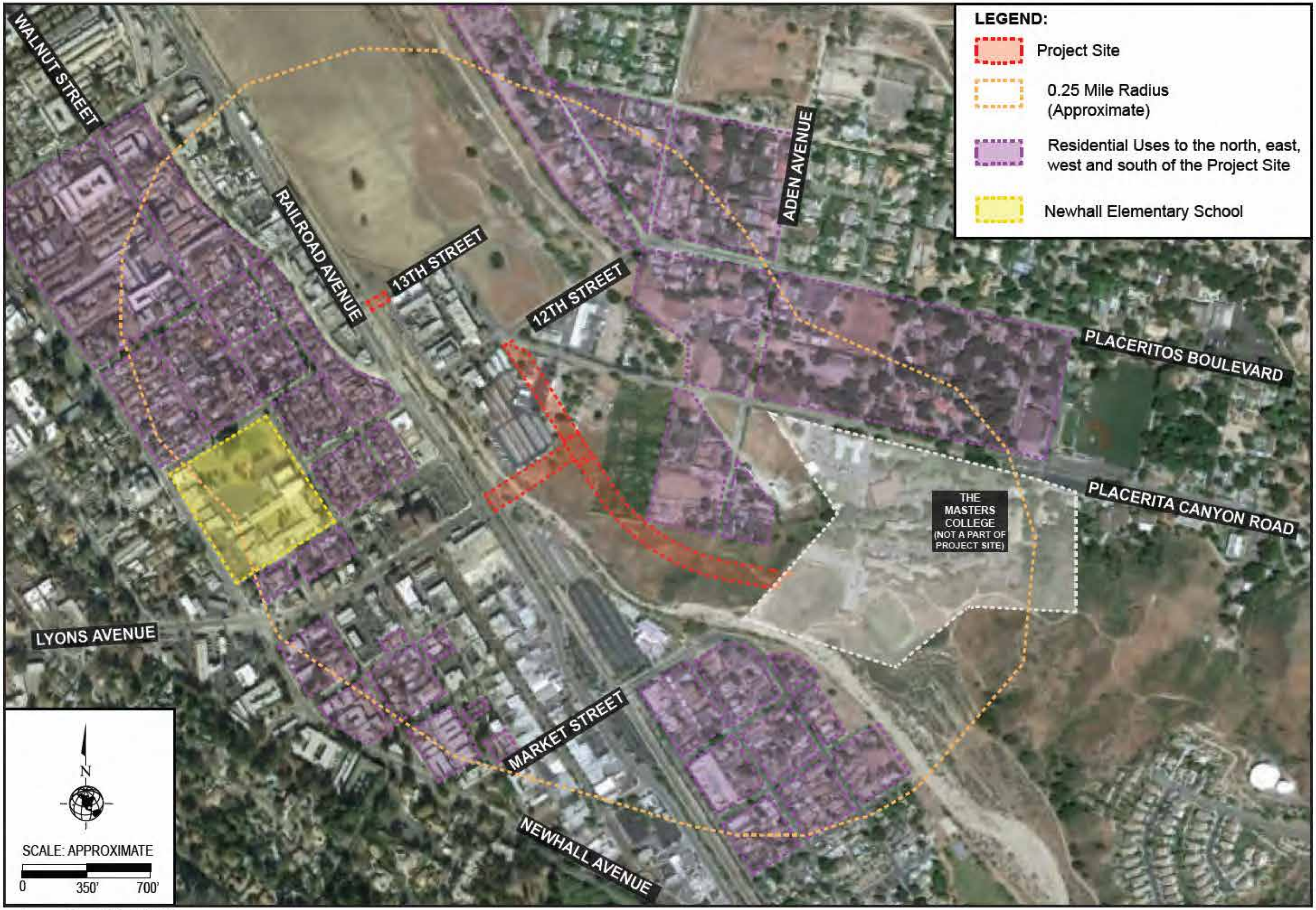
Appendix G of the State CEQA Guidelines

In accordance with guidance provided in Appendix G to the state CEQA Guidelines, the Project would have a significant impact on air quality if it would cause any of the following to occur:

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

(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

[8] *SCAQMD, CEQA Air Quality Handbook (1993) (at pgs. 5-1, 5-7)*



Source: Google Earth, 2015

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Figure 4.2-2
Air Quality Sensitive Receptors Location Map

(c) 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 release in emissions which exceed quantitative thresholds for ozone precursors);

(d) Expose sensitive receptors to substantial pollutant concentrations; or

(e) Create objectionable odors affecting a substantial number of people.

Consistency with the Applicable AQMP

Violation of Standards or Substantial Contribution to Air Quality Violations

As the agency principally responsible for comprehensive air pollution control in the Basin, the SCAQMD recommends that projects should be evaluated in terms of air pollution control thresholds established by the SCAQMD and published in the CEQA *Air Quality Handbook*. These thresholds were developed by the SCAQMD to provide quantifiable levels to which projects can be compared. The most current significance thresholds are shown in Table 4.2-7, SCAQMD Air Quality Significance Thresholds.

The SCAQMD has adopted criteria for consistency with regional plans and the regional AQMP in its CEQA Air Quality Handbook. Specifically, the indicators of consistency are:

1) whether the project would increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations; and

2) whether the project would exceed the assumptions utilized in preparing the AQMP.

According to the guidance set forth in SCAQMD CEQA Air Quality Handbook, the consistency criteria for the first criterion pertains to pollutant concentrations rather than to total regional emissions. As such, an analysis of the Proposed Project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating Project consistency with the first criterion.

With regard to the second criterion, projects that are consistent with the regional population, housing, and employment forecasts identified by SCAG are considered to be consistent with the AQMP growth projections, since the forecast assumptions by SCAG forms the basis of the land use and transportation control portions of the AQMP. The Proposed Project does not include the development of any residential uses. Furthermore, because the Proposed Project consists of building out a roadway segment that was previously adopted as part of the City's Circulation Element of the General Plan, the Proposed Project would not be considered growth-inducing. Therefore, this criterion is not applicable to the Proposed Project.

Table 4.2-7
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction [b]**	**Operation [c]**
NOx	100 pounds/day	55 pounds/day
VOC	75 pounds/day	55 pounds/day
PM_{10}	150 pounds/day	150 pounds/day
$PM_{2.5}$	55 pounds/day	55 pounds/day
SO_x	150 pounds/day	150 pounds/day
CO	550 pounds/day	550 pounds/day
Pb	3 pounds/day	3 pounds/day
Toxic Air Contaminants and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2eq for industrial facilities	
Ambient Air Quality for Criteria Pollutants [d]		
NO_2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.534 ppm (federal)	
PM_{10} 24-hour average annual average	10.4 $\mu g/m^3$ (construction)[e] & 2.5 $\mu g/m^3$ (operation) 1.0 $\mu g/m^3$	
$PM_{2.5}$ 24-hour average	10.4 $\mu g/m^3$ (construction)[e] & 2.5 $\mu g/m^3$ (operation)	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm federal – (99th percentile) 0.04 $\mu g/m^3$ (State)	
Sulfate 24-hour average	25 $\mu g/m^3$ (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or Contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-Month Average	1.5 $\mu g/m^3$ (state) 0.15 $\mu g/m^3$ (federal)	

Notes: ppm = parts per million by volume; $\mu g/m^3$ = micrograms per cubic meter

[a] *Source: SCAQMD CEQA Handbook (SCAQMD, 1993).*

[b] *Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).*

[c] *For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.*

[d] *Ambient air quality thresholds for criteria pollutants based on SCQMD Rule 1303, Table A-2 unless otherwise stated.*

[e] *Ambient air quality threshold based on SCAQMD Rule 403.*

Source: SCAQMD Air Quality Significance Thresholds, Revision March 2015.

Cumulatively Considerable Net Increase of Criteria Pollutants

The SCAQMD's *CEQA Air Quality Handbook* identifies several methods to determine the cumulative significance of land use projects (i.e., whether the contribution of a project is cumulatively considerable). However, the SCAQMD no longer recommends the use of these methodologies. Instead, the SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also be considered cumulatively considerable.[9] The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

CO Hotspot Concentrations

The SCAQMD recommends that impacts to sensitive receptors be considered significant when a project generates localized pollutant concentrations of NO_2, CO, PM_{10}, or $PM_{2.5}$ at sensitive receptors near a Project Site that exceed the localized pollutant concentration thresholds or when a project's traffic causes CO concentrations at sensitive receptors located near congested intersections to exceed the national or state ambient air quality standards. The roadway CO thresholds would also apply to the contribution of emissions associated with cumulative development.

Localized Significance Thresholds

To assess localized impacts, SCAQMD developed mass-based localized significance thresholds (LSTs) that determine the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds, which are found in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" guidance document prepared by the SCAQMD,[10] apply to projects that are less than or equal to five acres in size and are only applicable to the following criteria pollutants: NO_x, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each SRA. In terms of NO_x emissions, the two principal species of this pollutant are nitric oxide (NO) and NO_2, with the vast majority (95 percent) of the NO_x emissions being comprised of NO. However, because adverse health effects are associated with NO_2, the analysis of localized air quality impacts associated with NO_x emissions is focused on NO_2 levels. NO is converted to NO_2 by several processes, the two most important of which are (1) the reaction of NO with ozone, and (2) the photochemical reaction of NO with hydrocarbons. When modeling NO_2 emissions from combustion sources, the SCAQMD assumes that the conversion of NO to NO_2 is complete at a distance of 5,000 meters from the source. For PM_{10} LSTs, the thresholds were derived based on

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9 *White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, p. D-3.*

10 *SCAQMD, Final Localized Significance Threshold Methodology, June 2003, Revised July 2008.*

requirements in SCAQMD Rule 403 — Fugitive Dust. For $PM_{2.5}$ LSTs, the thresholds were derived based on a general ratio of $PM_{2.5}$ to PM_{10} for both fugitive dust and combustion emissions.

Exposure to Objectionable Odors

A significant impact may occur if objectionable odors occur that would adversely impact sensitive receptors. Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills.

Project Impacts

Construction

Construction of the Proposed Project would occur over an approximate 12-month timeframe and would involve clearing, grading, excavation, trenching, and asphalt paving. Construction would require 4,990 cubic yards (cy) of cut, 2,760 cy of fill, and 2,230 cy of soil export associated with grading and excavation. During construction, on-site stationary sources, heavy-duty construction vehicles, construction worker vehicles, and energy use would generate emissions. Additionally, grading, excavation, and other construction activities on the Project Site would generate fugitive dust emissions. Construction activities and their associated air quality impacts would be short-term in nature and limited only to the period when construction activity is actively taking place on the Project Site. The Project Site is approximately 5 acres in size and consists of natural land area. For purposes of this analysis it is assumed that a maximum of approximately 2 acres would be disturbed on a daily basis during the development of the Proposed Project. Clearing and grubbing of the area is expected to begin in December of 2019 and last through the end of 2020.

Construction emission calculations were obtained from the Roadway Construction Emissions Model, Version 7.1.5.1, which was developed by the Sacramento Metropolitan Air Quality Management District (SMAQMD). The Roadway Construction Emissions Model is used to assess the emissions from linear construction projects, such as roadways and incorporates factors from California Air Resource Board's (CARB's) EMFAC2011 on-road vehicle emissions model and CARB's OFFROAD2011 off-road vehicle emissions model. Both EMFAC2011 and OFFROAD2011 contain the most up-to-date emission factors for on-road and off-road vehicles. Emission calculations and air quality modeling data is provided in Appendix C, Air Quality Worksheets. The emission calculations assume the use of standard construction practices, such as compliance with SCAQMD Rule 403 (Fugitive Dust), to minimize the generation of fugitive dust. Compliance with Rule 403 is mandatory for all construction projects. In the Road Construction Emissions Model, Version 7.1.5.1, the emission calculations take into account compliance with Rule 403 by incorporating watering of the site during construction.

Table 4.2-8, Estimated Construction Emissions, identifies the maximum daily emissions for each pollutant during each phase of project construction. As shown in Table 4.2-8, the Proposed Project's construction emissions would be below the SCAQMD's significance thresholds for all criteria pollutants. Therefore, the Proposed Project's regional construction air quality emissions would be less than significant.

Table 4.2-8
Estimated Peak Daily Construction Emissions

Emissions Source	Emissions in Pounds per Day				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Grubbing/Land Clearing	1.5	15.1	12.0	20.7	4.8
Grading/Excavation	8.6	92.8	56.7	24.2	7.9
Drainage/Utilities/Sub-Grade	6.2	58.9	39.1	23.0	6.9
Paving	1.6	13.4	12.4	0.8	0.7
Total Emissions	***8.6***	***92.8***	***56.7***	***24.2***	***7.9***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	55.00
Significant Impact?	No	No	No	No	No
Source: Road Construction Emissions Model, Version 7.1.5.1. Sacramento Air Quality Management District, updated 12/11/13. Calculation sheets are provided in Appendix C to this EIR.					

AQMP Consistency

As noted above, the Proposed Project would not exceed the AQMD's significance thresholds for regional construction emissions and thus would not increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations within the Basin. The 2016 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the area under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

The Proposed Project would complete a segment of an approved Secondary Highway of the Circulation Element of the General Plan which would improve traffic conditions associated with the future buildout of the Santa Clarita Valley. Reductions in congestion and vehicle miles travelled (VMT) will also occur from the addition of bicycle and pedestrian facilities. Class II bicycle lanes and 8 foot sidewalks will be constructed on both sides of the road resulting in reduced trip lengths from the current circuitous route and provide direct access from the residential and Master's University area to the Jan Heidt Newhall Metrolink Station and Old Town Newhall. These project features would also serve to provide alternative modes of transportation other than motor vehicles and would be consistent with the goals and objectives of the AQMP to reduce vehicle emissions throughout the Basin.

Consistency with the City of Santa Clarita Air Quality Element

Local jurisdictions, including the City, 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's Air Quality Element describes the local and regional setting, conditions and environment, which affect the air quality in the Valley. A detailed analysis of the consistency of the Proposed Project with relevant policies in the City's Air Quality Element is presented in Table 4.2-9, Project Consistency with Applicable Policies of the City's General Plan Air Quality Element. As shown in Table 4.2-9, the Project would be consistent with the applicable goals, objectives, and policies set forth in the City's Air Quality Element.[11] Therefore, impacts related to consistency with the applicable air quality policies in the General Plan would be less than significant.

Table 4.2-9
Project Consistency with Applicable Policies of the City's General Plan Air Quality Element

Policy	Consistency Analysis
Policy 5.1: Develop and implement traffic flow improvements in order to reduce congestion, conserve energy, and improve air quality.	**Consistent.** As discussed in Section 4.9 Transportation and Traffic, the Project's traffic would be mitigated to the maximum extent feasible through the implementation of mitigation measures 4.9-1 through 4.9-14, which all implement modifications in traffic signals and circulation aimed at reducing congestion in the Project area and in the region. The Proposed Project would reduce "cross valley" trip lengths and travel times, which would overall decrease vehicle related pollutants and thereby improve health and air quality. Therefore, the Proposed Project would be consistent with this policy.
Policy 5.2: Promote synchronization of traffic lights to reduce emissions from delays.	**Consistent:** As previously discussed, the Proposed Project's mitigation measures listed in Section 4.9 Transportation and Traffic would modify circulation and traffic signals in the Project area in order to reduce delays at intersections. Thus, the improvements in the local streets and traffic signals would be consistent with this policy.
Policy 5.3: Maintain adequate levels of service on roadways and at intersections to reduce emissions from delays.	**Consistent:** As shown in Tables 4.9-6 and 4.9-7 in the Transportation and Traffic section, lane modifications and traffic signal mitigation measures would improve the LOS on roadways with existing LOS E or LOS F. The mitigation measures would reduce delays at intersections with unacceptable levels of service and would reduce potential Project impacts. Thus, the Proposed Project would be consistent with this policy.
Policy 5.4: Provide Class One bike trails to increase capacity of on-street travel lanes.	**Consistent.** Potential bike lane connects are proposed from Dockweiler Drive to connect the Proposed Class I Bike path along Railroad Avenue. The design of the Proposed Project would encourage patrons to walk and bike to and from the Project Site, which would promote the use of bicycle transportation as an alternative to the vehicle. Thus, the Proposed Project would be consistent with this policy.
Policy 7.1: Encourage the use of low-polluting building and construction methods and materials.	**Consistent.** The Proposed Project would comply with SCAQMD Rule – Fugitive 403 – Fugitive Dust which would reduce any construction-related emissions as stated in mitigation measure 4.2-1. Additionally, mitigation

[11] *While the City's General Plan Air Quality Element has additional policies that are not listed in Table 4.2-9, many policies are directly applicable to the City operations rather than individual development projects in the private sector.*

Table 4.2-9
Project Consistency with Applicable Policies of the City's General Plan Air Quality Element

	measure 4.2-3 limits the type of off-road diesel powered equipment allowed for the Project's construction. The Proposed Project would also implement mitigation measure 4.2-4 which requires the use of low-VOC materials during the construction phase. Among the SCAQMD rules applicable to the Proposed Project are Rule 403 (Fugitive Dust), Rule 1108 (Cutback Asphalt) and Rule 1108.1 (Emulsified Asphalt), and Rule 1120 (Asphalt Pavement Heaters). Rule 403 requires the use of stringent best available control measures to minimize PM_{10} emissions during grading and construction activities. Rules 1108 and 1108.1 would limit the VOC content of asphalt materials. Rule 1120 would place restrictions on the use of asphalt pavement surface heaters and asphalt heater-remixers for the purpose of maintaining, reconditioning, reconstructing, or removing asphalt pavement. Therefore, with implementation of the mitigation measures listed below, the Proposed Project would be consistent with this policy.
Policy 13.1: Implement measures to reduce particulate emissions from paved and unpaved roads, parking lots, road and building construction, and manufacturing sites.	**Consistent.** Construction activities associated with the Project would be required to comply with SCAQMD Rule 403—Fugitive Dust, which requires appropriate dust control measures to be implemented during each phase of development. (See Mitigation Measure 4.2-1). Consequently, particulate emissions at the Project Site during construction of the Proposed Project would be minimized. The Proposed Project would not utilize any unpaved roads for access. During the earthwork phases of construction, the Project Site would be watered to suppress dust emissions as required through SCAQMD Rule 403. Additionally, as stated above, Rules 1108 and 1108.1 would limit the VOC content of asphalt materials. Rule 1120 would place restrictions on the use of asphalt pavement surface heaters and asphalt heater-remixers for the purpose of maintaining, reconditioning, reconstructing, or removing asphalt pavement. Therefore, the Proposed Project would be consistent with this policy.
Source: Policies applicable to the Project were derived from the City's General Plan Air Quality Element, Amended May 23, 2000; Project consistency analysis by Parker Environmental Consultants, 2016.	

Localized Construction Emissions

The Proposed Project would result in significant localized air emissions in close proximity to residential land uses within 100 meters of the Project Site on a temporary and intermittent basis during construction. The daily on-site construction emissions generated by the Project were analyzed against the SCAQMD's localized significance thresholds for the specified criteria pollutants to determine whether the Proposed Project's on-site construction emissions would cause or contribute to adverse localized air quality resulting in impacts to sensitive receptors. For purposes of estimating on-site construction emissions, Roadway Construction Emissions Model, Version 7.1.5.1, was used to estimate only the on-site emissions (*e.g.*, excluding factors associated with off-site hauling and worker commuting emissions). Under this scenario, the localized air quality impacts were then compared to the SCAQMD's localized significance thresholds screening criteria for a 2-acre site, as it is anticipated that no more than 2 acres would be disturbed at the same time. The specific thresholds of significance for the sensitive receptors identified in Figure 4.2-2, Air Quality Sensitive Receptor Map, were derived from the Localized Significance Threshold's Appendix C mass look up rates, based on their location relative to the Proposed Project's grading footprint.

As shown in Table 4.2-10, localized NO_X and CO emissions would be below the significance thresholds at all sensitive receptor locations. However, localized thresholds would be exceeded for PM_{10} and $PM_{2.5}$ emissions at two locations: (1) the single family residential land uses located immediately north of the Project Site on Aden Avenue (within a proximity of 100 meters of the edge of the Project Site) and (2) the residential land uses within 100 meters south of the Project Site in the vicinity of Market Street and Race Street. Localized emissions would be below the stated thresholds for any land use located further than 100 meters from the Project Site. Therefore, localized air quality impacts resulting from construction activities would be considered significant.

Operational Emissions

Although the Proposed Project would not directly generate any new vehicle trips, the Proposed Project would result in changes to the traffic circulation in the vicinity and would alter the average daily traffic volumes and peak hour traffic volumes at local intersections. As such, a CO hotspot analysis was conducted for selected study intersections meeting the evaluation criteria discussed above utilizing the simplified CALINE4 screening model developed by the Bay Area Air Quality Management District (BAAQMD). The simplified model is intended as a screening analysis that identifies a potential CO hotspot. If a hotspot is identified, the complete CALINE4 model is then utilized to determine precisely the CO concentrations predicted at the intersections in question. This methodology assumes worst-case conditions (i.e., wind direction is parallel to the primary roadway and 90 degrees to the secondary road, wind speed of less than 1 meter per second and extreme atmospheric stability) and provides a screening of maximum, worst-case, CO concentrations. This model is utilized to predict existing and future CO concentrations 0 feet from the intersections in the study area based on projected traffic volumes from these intersections contained in the project traffic study. Interim year 2019 with-project conditions CO concentrations were calculated for peak hour traffic volumes for those intersections that are anticipated to operate at LOS D or worse, based on the traffic analysis for the project (See Section 4.9, Transportation and Traffic). Background (existing) ambient CO concentrations were also factored into the analysis. The results of these CO Hotspot concentration calculations are presented in Table 4.2-11, Existing Conditions Plus Project (2019) Carbon Monoxide Concentrations. As shown in Table 4.2-11, the screening calculations predict that, under worst-case conditions, future CO concentrations at each intersection would not exceed the state 1-hour and 8-hour standards with or without the development of the Proposed Project. As a result, no significant Project-related impacts would occur relative to future carbon monoxide concentrations. Therefore, the Proposed Project would have a less than significant impact with respect to this criterion.

Table 4.2-10
Localized On-Site Peak Daily Construction Emissions

Construction Activity	Distance From Project Site [c]	Total On-Site Emissions (Pounds per Day)							
		NO_x [b]		CO		PM_{10}		$PM_{2.5}$	
		88.1 lbs./day		52.6 lbs./day		24 lbs./day		7.8 lbs./day	
		[A] [a]	[B]	[A] [a]	[B]	[A] [a]	[B]	[A] [a]	[B]
1.Single-family homes in Placerita Canyon	40 m	163	No	877	No	6	**Yes**	4	**Yes**
2.Residential uses south of the Project Site	75 m	159	No	1,256	No	19	**Yes**	5	**Yes**
3.The Master's University Campus	150 m	172	No	1,787	No	32	No	9	No
4.Residential uses northwest of the Project Site	110 m	172	No	1,787	No	32	No	9	No
5.Newhall Elementary School	225 m	204	No	3,108	No	59	No	20	No

Explanation of Columns:

[A] LST: Localized Thresholds of Significance: Localized thresholds are expressed in terms of lbs./day.

[B] Significant Impact? Yes or No.

[a] *The localized thresholds for all receptors are based on the specified receptor distance and the mass look up rates identified in Appendix C of the Final Localized Significance Threshold Methodology (Revised July 2008) for SRA 13 (Santa Clarita Valley).*

[b] *The localized thresholds listed for NO_x in this table take into consideration the gradual conversion of NO_x to NO_2, and are provided in the mass rate look-up tables in the Final Localized Significance Threshold Methodology document. The analysis of localized air quality impacts associated with NO_x emissions is focused on NO_2 levels as they are associated with adverse health effects.*

[c] *Distances from the Project Site to the sensitive receptors are expressed in meters.*

Calculation sheets are provided in Appendix C to this EIR.

4.2.4 CUMULATIVE IMPACTS

Regional Emissions

Cumulative air quality impacts from construction and operation of the Proposed Project are based on SCAQMD guidelines, and are analyzed in a manner similar to Project-specific air quality impacts. Pursuant to the study methodology identified in the SCAQMD's CEQA Air Quality Handbook, projects that are within the project-level emission thresholds identified above should be considered less than significant on a cumulative basis. Individual development projects that generate construction or operational emissions that exceed the SCAQMD recommended daily thresholds for project-specific impacts would be considered to cause or contribute to a cumulatively considerable increase in emissions for those pollutants for which the Basin is in non-attainment. Thus, as discussed in the Section above, because the construction-related emissions associated with the Proposed Project would not exceed the SCAQMD's recommended thresholds, the Proposed Project's construction emissions would not be cumulatively considerable. Therefore, cumulative air quality impacts would be less than significant.

The Proposed Project would not generate any operational source emissions and thus would not contribute to cumulative emissions within the Basin. Therefore operational impacts would be less than significant on a cumulative basis.

Table 4.2-11
Existing Conditions Plus Project (2019) Carbon Monoxide Concentrations

Intersection	Localized CO Concentrations					
	Roadway Edge		25 Feet		Exceed Standard?	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
1. Sierra Highway and SR-14 Southbound Ramps	2.8	1.4	2.5	1.2	No	No
2. Sierra Highway and Placerita Canyon Road	2.9	1.4	2.6	1.2	No	No
4. Sierra Highway and Dockweiler Drive	2.7	1.3	2.4	1.1	No	No
5. SR-14 Southbound Ramps and Newhall Avenue	3.4	1.8	2.9	1.4	No	No
6. Sierra Highway and Newhall Avenue	3.1	1.5	2.7	1.3	No	No
8. Valle Del Oro and Dockweiler Drive	2.3	1.0	2.2	0.9	No	No
11. Newhall Avenue and Lyons Avenue	2.5	1.1	2.4	1.0	No	No
12. Railroad Avenue and Lyons Avenue	2.8	1.3	2.5	1.2	No	No
15. Main Street and Newhall Avenue	2.9	1.4	2.5	1.2	No	No
16. Arch Street and 12th Street/Placerita Cyn Road	2.2	1.0	2.1	0.9	No	No

Source: Traffic data from David Evans & Associates, Inc., Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, May 2, 2016. See Appendix C for Air Quality Calculation Worksheets.

Localized Emissions

To assess the Proposed Project's cumulative contribution to CO concentrations, CO concentrations resulting from Future Year 2035 With-Project conditions were calculated for peak hour traffic volumes for those intersections that are anticipated to operate at LOS D or worse, based on the traffic analysis for the project (See Section 4.9, Transportation and Traffic). The results of these CO Hotspot concentration calculations are presented in Table 4.2-12, Future Conditions Plus Project (2035) Carbon Monoxide Concentrations. As shown in Table 4.2-12, the screening calculations predict that, under worst-case conditions, future cumulative CO concentrations at each intersection would not exceed the state 1-hour and 8-hour standards with or without the development of the Proposed Project. As a result, no significant cumulative impacts would occur relative to future carbon monoxide concentrations. Therefore, the Proposed Project would have a less than significant impact with respect to this criterion.

Table 4.2-12
Future Conditions Plus Project (2035) Carbon Monoxide Concentrations

Intersection	Localized CO Concentrations					
	Roadway Edge		25 Feet		Exceed Standard?	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
1. Sierra Highway and SR-14 Southbound Ramps	2.8	1.4	2.5	1.2	No	No
2. Sierra Highway and Placerita Canyon Road	3.1	1.6	2.8	1.3	No	No
4. Sierra Highway and Dockweiler Drive	3.1	1.5	2.6	1.3	No	No
5. SR-14 Southbound Ramps and Newhall Avenue	3.0	1.5	2.7	1.3	No	No
6. Sierra Highway and Newhall Avenue	3.0	1.5	2.7	1.3	No	No
8. Valle Del Oro and Dockweiler Drive	2.6	1.2	2.4	1.1	No	No
11. Newhall Avenue and Lyons Avenue	2.6	1.2	2.4	1.0	No	No
12. Railroad Avenue and Lyons Avenue	2.7	1.3	2.5	1.1	No	No
15. Main Street and Newhall Avenue	2.8	1.3	2.4	1.1	No	No
16. Arch Street and 12th Street/Placerita Cyn Road	2.3	1.0	2.2	0.9	No	No

Source: Traffic data from David Evans & Associates, Inc., Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017. See Appendix C for Air Quality Calculation Worksheets.

4.2.5 MITIGATION MEASURES

The following mitigation measures are recommended to ensure that the Proposed Project is constructed in compliance with the AQMD's Rule 403 for fugitive dust:

4.2-1 Prior to grading permit issuance, the Project contractor shall develop a Construction Emission Management Plan to minimize construction-related emissions. The Construction Emission Management Plan shall require the use of Best Available Control Measures, as specified in Table 1 of SCAQMD's Rule 403. The Construction Emission Management Plan shall include the following additional elements:

a. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. When wind speeds exceed 15 miles per hour the operators shall increase watering frequency.

b. Active sites shall be watered at least three times daily during dry weather.

c. Suspend grading and excavation activities during windy periods (i.e., surface winds in excess of 25 miles per hour).

d. Suspend the use of all construction equipment during first-stage smog alerts.

e. Application of non-toxic chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).

f. Application of non-toxic binders to exposed areas after cut and fill operations and hydroseeded areas.

g. Plant vegetative ground cover in disturbed areas as soon as possible and where feasible.

h. Operate street sweepers that comply with SCAQMD Rules 1186 and 1186.1 on roads adjacent to the construction site so as to minimize dust emissions. Paved parking and staging areas shall be swept daily.

i. Scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes.

j. Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

k. Pave or apply gravel on roads used to access the construction sites when possible.

l. Minimize idling time either by shutting equipment when not in use or reducing the time of idling to 5 minutes as a maximum.

m. Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

4.2-2 All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of each unit's certified tier specification, BACT documentations, and CARB, SCAQMD, or ICAPCD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

4.2-3 An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive fugitive dust generation. Any reasonable complaints shall be rectified within 24 hours of their receipt.

4.2-4 The contractor shall utilize low-VOC content coatings and solvents that are consistent with applicable SCAQMD and ICAPCD rules and regulations.

4.2.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Proposed Project would result in less-than-significant impacts associated with regional construction and operational air quality emissions. Localized emissions of PM_{10} and $PM_{2.5}$, however, would be significant and unavoidable.