V. ENVIRONMENTAL IMPACT ANALYSIS
C. AIR QUALITY

This section examines the degree to which the proposed project may result in significant adverse changes to air quality. Both short-term construction emissions occurring from activities such as site grading and haul truck trips, as well as long-term effects related to the ongoing operation of the proposed project are discussed in this section. The analysis contained herein focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the actual quantity of pollutant measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air and are measured in parts per million (ppm) or micrograms per cubic meter (μg/m3).

The potential for the proposed project to conflict with or obstruct implementation of the applicable air quality plan, to violate an air quality standard or contribute substantially to an existing or projected air quality violation, to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, or to expose sensitive receptors to substantial pollutant concentrations are also discussed. Documents used in the preparation of this section include the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook* and the 2003 Air Quality Management Plan (AQMP), as amended, as well as federal and State regulations and guidelines.

ENVIRONMENTAL SETTING

The project site is located within the South Coast Air Basin (Basin); named so because of its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. This area includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The air quality within the Basin is primarily influenced by a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, industry, and meteorology.

Climate

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). Coastal areas have a more pronounced oceanic influence, and show less variability in annual minimum and maximum temperatures than inland areas. The community of Woodland Hills in the City of Los Angeles is located in the southwest San Fernando Valley of Los Angeles County, which is in the northwestern portion of the Basin. The climatological station closest to the project site that monitors temperature is the Canoga Park Pierce College station (WRCC 2005), which is located approximately 5 miles northeast of the project site. The annual average maximum temperature recorded from 1971 to 2000 at this station is 81.1°F, and the annual average minimum is 47.7°F. January and December are typically the coldest months in this area of the Basin.

Although the climate of the Basin can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of Basin climate. Humidity restricts visibility in the Basin. The annual average relative humidity is 71 percent along the coast and 59 percent inland. Because the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin, along the coastal side of the mountains. Average rainfall measured at the Canoga Park Pierce College climatological station from 1971 to 2000 varied from 4.51 inches in February to 0.03 inches in July, with an average annual total of 17.85 inches. The influence of rainfall on the contaminant levels in the Basin is minimal.

The Basin experiences a persistent temperature inversion, which is characterized by increasing temperature with increasing altitude. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. The mixing height for this inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

The vertical dispersion of air contaminants in the Basin is also affected by wind conditions. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas in the Basin are transported predominantly on-shore into Riverside and San Bernardino Counties. The Santa Ana winds, which are strong and dry north or northeasterly winds that occur during the fall and winter months, also disperses air contaminants in the Basin. The Santa Ana conditions tend to last for several days at a time.

Air Pollutants and Effects

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 are usually subject to a permit to operate from the SCAQMD, occur at specific identified locations, and are usually associated with manufacturing and industry. Examples of point sources are boilers or combustion equipment that produce electricity or generate heat, such as heating, ventilation, and air conditioning (HVAC) units. In contrast, area sources are widely distributed, produce many small emissions, and they do not require permits to operate from the SCAQMD. Examples of area sources include residential and commercial water heaters, painting operations, portable generators, lawn mowers, agricultural fields, landfills, and consumer products, such as barbeque lighter fluid and hairspray, the area-wide use of which contributes to regional air pollution. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources are those that are legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, racecars, and construction vehicles.

Mobile sources account for the majority of the air pollutant emissions within the Basin. However, 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 specific pollutants, referred to as “criteria pollutants,” in order to protect public health. The national and state ambient air quality standards have been set at concentration levels to protect the most sensitive persons from illness or discomfort with a margin of safety. It is the responsibility of the SCAQMD to bring air quality within the Basin into attainment with the national and state ambient air quality standards, which are identified later in this EIR section.

The criteria pollutants for which federal and state standards have been promulgated and that are most relevant to air quality planning and regulation in the Basin are ozone, carbon monoxide, fine suspended particulate matter, nitrogen dioxide, sulfur dioxide, and lead. In addition, toxic air contaminants are of concern in the Basin. Each of these pollutants is briefly described below.

- *Ozone* (O_3) is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone 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.

- *Carbon Monoxide (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 during the winter morning, 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 ozone, 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.

- *Respirable Particulate Matter* (PM_{10}) and *Fine Particulate Matter* ($PM_{2.5}$) 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.

- *Nitrogen dioxide (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 nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As 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.

- *Sulfur dioxide (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 sulfur dioxide oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SOx).

- *Lead (Pb)* occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead 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 race cars. However, because it was emitted in large amounts from vehicles when leaded gasoline was used for on-road motor vehicles, lead is present in many urban soils and can get re-suspended in the air. Other sources of lead include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and the use of secondary lead smelters.

- *Toxic Air Contaminants (TAC)* 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. They 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. Toxic air contaminants 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 scale rather than on a regional basis.

In addition, State standards have been promulgated for sulfates, hydrogen sulfide, and visibility reducing particles. The State also recognizes vinyl chloride as a TAC with an undetermined threshold level of exposure for adverse health effects. Discussion of these criteria pollutants, however, will be limited as the proposed project is not expected to emit these pollutants. Vinyl chloride and hydrogen sulfide emissions are generally generated from mining, milling, refining, smelting, landfills, sewer plants, cement manufacturing, or the manufacturing or decomposition of organic matter. As the proposed project does not contain any of these uses, they need not be addressed further in this EIR. As to sulfate and visibility reducing particles, the State standards are not exceeded anywhere in the Basin; therefore, these pollutants are not relevant to air quality planning and regulation and need not be further addressed in this EIR.

Existing Regional Air Quality

Measurements of ambient concentrations of the criteria pollutants are used by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (ARB) 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 "nonattainment" area. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified."

The entire Basin is designated as a national-level extreme nonattainment area for ozone, meaning that national ambient air quality standards are not expected to be met for more than 17 years, and a nonattainment area for CO and PM_{10}. The area is also a nonattainment area for NO_X and $PM_{2.5}$, as designated by the U.S. EPA. The Basin is a state-level extreme nonattainment area for ozone, and is a nonattainment area for $PM_{2.5}$ and PM_{10}. It is in attainment for the state CO standard, and it is in attainment of both the national and State ambient air quality standards for SO_2, lead, and NO_2, which is a pure form of NO_X.

The SCAQMD divides the Basin into thirty-eight source receptor areas (SRAs) in which thirty-two monitoring stations operate to monitor the various concentrations of air pollutants in the region. The community of Woodland Hills within the City of Los Angeles is located within SRA 6, which covers the West San Fernando Valley. The ARB also collects ambient air quality data through a network of air monitoring stations throughout the state. These data are summarized annually and are published in the ARB's California Air Quality Data Summaries. The Reseda monitoring station is the nearest monitoring station to the project site. This station currently monitors emission levels of ozone, $PM_{2.5}$, CO, and NO_2, but does not monitor the pollutant levels of PM_{10} and SO_2. Table IV.B-1, Summary of Ambient Air Quality in the Proposed 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 at the Reseda monitoring station between 2002 to 2004.

According to the air quality data from the Reseda monitoring station shown in Table IV.C-1, the national 1-hour ozone standard was exceeded a total of 25 days over the last three years within SRA 6, while the state 1-hour ozone standard was exceeded a total of 164 days over the last three years. In addition, the national 8-hour ozone standard was exceeded a total of 106 days over the last three years. The national 24-hour $PM_{2.5}$ standard has not been exceeded over the last three years, and no national or State standards for CO or NO_2 have been exceeded over the last three years within SRA 6.

Existing Local Air Quality

The general surrounding area of the project site is characterized by suburban development consisting of mostly residential land uses. Consisting of a single parcel of land, the project site is currently surrounded by a chain link fence and is occupied by a vacant, two-story single-family residence, sheds, and an aged kennel at the east-central portion of the property along Mulholland Drive.

The remaining portions of the site consist of undeveloped, open space that is occupied by various trees, shrubs, low-lying weeds, and grasses.

Table V.C-1

Summary of Ambient Air Quality in the Proposed Project Vicinity

Air Pollutants Monitored Within SRA 6—West San Fernando Valley Area	**Year**		
	2002	**2003**	**2004**
Ozone (O_3)			
Maximum 1-hour concentration measured	0.152 ppm[a]	0.179 ppm	0.131 ppm
Number of days exceeding national 0.12 ppm 1-hour standard	9	14	2
Number of days exceeding State 0.09 ppm 1-hour standard	42	68	54
Maximum 8-hour concentration measured	0.121 ppm	0.127 ppm	0.115 ppm
Number of days exceeding national 0.08 ppm 8-hour standard	27	49	30
Fine Particulate Matter (PM2.5)			
Maximum 24-hour concentration measured	48.8 $\mu g/m^3$[b]	47.5 $\mu g/m^3$	56.2 $\mu g/m^3$
Number of days exceeding national 65.0 $\mu g/m^3$ 24-hour standard	0	0	0
Carbon Monoxide (CO)			
Maximum 8-hour concentration measured[c]	4.83 ppm	4.13 ppm	3.47 ppm
Number of days exceeding national 9.0 ppm 8-hour standard	0	0	0
Number of days exceeding State 9.0 ppm 8-hour standard	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration measured	0.093 ppm	0.125 ppm	0.083 ppm
Number of days exceeding State 0.25 ppm 1-hour standard	0	0	0
Annual average	0.024 ppm	0.025 ppm	0.021 ppm
Does measured annual average exceed national 0.0534 ppm annual average standard?	No	No	No

a. ppm = parts by volume per million of air.
b. $\mu g/m^3$ = micrograms per cubic meter.
c. 1-hour CO concentrations were not monitored at the Reseda monitoring station.

Source: ARB 2002, 2003, 2004.

Land uses surrounding the 6.09-acre project site include one- and two-story single-family homes to the north, east, and west, the Girard Reservoir and the City of Los Angeles Department of Water and Power Pumping Station to the northeast, a private parochial high school and convent to the southeast, and a two-story commercial office building with a surface parking lot and a small shopping center to the southwest. The City of Calabasas begins approximately 365 feet south of the project site, along Mulholland Highway. The private parochial high school, called Louisville High School, and convent property houses multiple structures and contains a surface parking lot that parallels Mulholland Drive. The two-story commercial office building, called Mulholland Plaza, is located at the southwest corner of the intersection between Mulholland Drive and Mulholland Highway. The shopping center, called Gelson's Village Calabasas, is located in the jurisdiction of the City of Calabasas adjacent to Mulholland Plaza, and consists of retail and commercial stores, including a Gelson's Supermarket, yoga studio, Washington Mutual Bank, and dry cleaners. Adjacent to Gelson's Village Calabasas is a Shell gas station.

Motor vehicles are the primary source of pollutants in the project site vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed national and/or State standards for CO are termed "CO hotspots." Chapter 5 of the SCAQMD's *CEQA Air Quality Handbook* identifies CO as a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots. The SCAQMD defines typical sensitive receptors as residences, schools, playgrounds, childcare centers, athletic facilities, hospitals, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The SCAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak hour turning volumes to ambient CO air concentrations. This analysis assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations.

Existing maximum 8-hour CO concentrations were calculated for the five intersections evaluated in the traffic report for the proposed project, which have sensitive receptors in close proximity to the roadways. The results of these calculations are presented in Table V.C-2, Existing Localized Carbon Monoxide Concentrations, for representative receptors located 25, 50, and 100 feet from each roadway. These distances were selected because they represent locations where a person may be living or working for more than eight hours at a time. The 8-hour national and State CO standards are 9.0 ppm.

As shown in Table V.C-2, none of the study intersections is currently exceeding the national and State 8-hour CO standards.

Existing Site Emissions

As discussed above, the project site is currently surrounded by a chain link fence and is occupied by a vacant, two-story single-family residence, sheds, and an aged kennel at the east-central portion of the property along Mulholland Drive. The remaining portions of the project site consist of undeveloped, open space that is occupied by various trees, shrubs, low-lying weeds, and grasses. As such, there are currently no sources of emissions at the project site.

Table V.C-2

Existing Localized Carbon Monoxide Concentrations

Intersection	8-Hour CO Concentrations in Parts per Million[a]		
	25 feet	50 feet	100 feet
Dumetz Road and San Feliciano Drive	3.9	3.8	3.7
Dumetz Road and Topanga Canyon Boulevard	4.6	4.3	4.1
Mulholland Drive and San Feliciano Drive	3.9	3.8	3.7
Mulholland Drive and Mulholland Highway	4.2	4.1	3.9
Mulholland Drive and Topanga Canyon Bouelvard	4.6	4.3	4.1

[a] National and State 8-hour standards are 9.0 parts per million.
Traffic Information Source: Crain & Associates of Southern California, November 2004.
Source: Christopher A Joseph and Associates, 2005. Calculation data and results are provided in Technical Appendix F.

Health Effects of Air Pollutants

Ozone

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 sub-groups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California 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 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

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

A consistent correlation between elevated ambient fine 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 an increased mortality from lung cancer.

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

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 subjects. 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

A few minutes 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 particles 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 one pollutant alone is the predominant factor.

Sulfates

Most of the health effects associated with fine particles 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 have generally 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 quotient. 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 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

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer). 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 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). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors and fine particles. 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 as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The United States Environmental Protection Agency (USEPA) has adopted low sulfur diesel fuel standards that will reduce diesel particulate matter substantially. These go into effect in June 2006.

Regulatory Framework

Air quality in the United States is governed by the Federal Clean Air Act (CAA). In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, the CAA is administered by the USEPA. In California, the CCAA is administered by the CARB at the State level and by the Air Quality Management Districts at the regional and local levels.

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. The agencies responsible for improving the air quality within the Basin are discussed below.

Federal

USEPA

The USEPA 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 USEPA 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 USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs.

State

CARB

The CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, the CARB conducts research, sets State 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 barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Regional

Southern California Association of Governments

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

Although the 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 Regional Comprehensive Plan and Guide (RCPG) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RCPG 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 2015, and beyond. Policies within the RCPG include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

SCAQMD

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. Every three years, the SCAQMD prepares an overall plan for air quality improvement. Each iteration of the plan is an update of the previous plan and has a 20 year horizon. The Final 2003 AQMP was adopted by the SCAQMD Governing Board on August 1, 2003 and the 2007 AQMP is currently under preparation. The 2003 AQMP updates the attainment demonstration for the federal standards for ozone and particulate matter (PM_{10}); replaces the 1997 attainment demonstration for the federal carbon monoxide (CO) standard and provides a basis for a maintenance plan for CO for the future; and updates the maintenance plan for the federal nitrogen dioxide (NO_2) standard that the Basin has met since 1992. This revision to the AQMP also addresses several State and federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone SIP for the Basin for the attainment of the federal ozone air quality standard.

The future air quality levels projected in the 2003 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 in its most current version of the RCPG, which was adopted in March 1996. The AQMP also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation.

Local

City of Los Angeles

Local jurisdictions, such as the City of Los Angeles, 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 Los Angeles is also responsible for the implementation of transportation control measures as outlined in the

AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with 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 by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

ENVIRONMENTAL IMPACTS

Methodology

The analysis in this section focuses on the nature and magnitude of the change in the air quality environment due to implementation of the proposed project. Air pollutant emissions associated with the proposed project would result from operation of the proposed residential development and from project-related traffic volumes. Construction activities would also generate emissions at the project site and on roadways resulting from construction-related traffic. The net increase in project site emissions generated by these activities and other secondary sources have been quantitatively estimated and compared to thresholds of significance recommended by the SCAQMD.

Construction Emissions

Construction emissions are calculated using the URBEMIS 2002 computer model developed for the ARB by estimating the types and number of pieces of equipment that would be used to demolish existing structures, grade and excavate the project site, construct the proposed development, and plant new landscaping within the project site. Construction emissions are analyzed according to the thresholds established by the SCAQMD and published in the CEQA *Air Quality Handbook*. The construction activities associated with the proposed project would cause diesel emissions, and would generate emissions of dust. Construction equipment within the project site that would generate criteria air pollutants could include excavators, graders, dump trucks, and loaders. Some of this equipment would be used during demolition and grading activities as well as when structures are constructed on the project site. In addition, emissions during construction activities also include export truck trips offsite to remove debris during the demolition phase. It is assumed that all of the construction equipment used would be diesel-powered.

Operational Emissions

Operational emissions associated with the proposed project are estimated using the URBEMIS 2002 computer model developed for the ARB and the information provided in the traffic study prepared for the proposed project. Operational emissions would be comprised of mobile source emissions and area source emissions. Mobile source emissions are generated by the increase in motor vehicle trips to and from the project site associated with operation of the proposed project. Area source emissions are generated by natural gas consumption for space and water heating, and landscape maintenance equipment. To determine if an air quality impact would occur, the increase in emissions would be compared with the SCAQMD's recommended thresholds.

Localized CO Concentrations

Localized CO concentrations are calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and utilized by the SCAQMD. The simplified model 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 resulting emissions are compared with adopted national and State ambient air quality standards.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, a significant air quality impact may occur if the proposed project would result in any of the following conditions:

(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;

(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.

As discussed in the Initial Study (see Appendix A to this Draft EIR), the proposed project would have no impact with respect to Threshold (e) listed above. Objectionable odors are typically associated with food related activities and industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements, as well as sewage treatment facilities and landfills. The proposed project, which consists of the development of 37 single-family homes on the project site, would not involve any elements related to these types of uses. Consequently, no significant impacts related to objectionable odors are anticipated from the proposed project. As such, no further analysis of this topic is required (see also Section IV.A of this Draft EIR).

The City prepared the Draft L.A. CEQA Thresholds Guide in 1998. For air quality, the City has not adopted specific citywide significance thresholds but instead relies on significance thresholds identified by the SCAQMD in its CEQA *Air Quality Handbook* (SCAQMD CEQA Handbook), as revised in November 1993 and approved by the SCAQMD's Board of Directors.

The SCAQMD's emission thresholds apply to all federally regulated air pollutants except lead, which is not exceeded in the Basin. As such, construction and operational emissions associated with the proposed project would be significant if they exceed the thresholds shown in Table V.C-3.

Table V.C-3
SCAQMD's Emission Thresholds of Significance

Pollutant	Construction		Operation
	pounds/day	tons/quarter	pounds/day
Carbon Monoxide (CO)	550	24.75	550
Sulfur Oxides (SOx)	150	6.75	150
Particulate Matter (PM10)	150	6.75	150
Nitrogen Oxides (NOx)	100	2.5	55
Reactive Organic Gases (ROG)	75	2.5	55
Source: SCAQMD CEQA Air Quality Handbook, 1993.			

Carbon monoxide emissions from a project are significant if they cause CO concentrations at impacted locations to exceed a national or State standard or, in an area that already exceeds a standard, to increase CO concentrations by more than one part per million (ppm) averaged over one hour or 0.45 ppm averaged over eight hours.

In order to assess cumulative impacts, the SCAQMD recommends that projects be evaluated to determine whether they would be consistent with 2003 AQMP performance standards and project-specific emissions thresholds. In the case of the proposed project, air pollutant emissions would be considered to be cumulatively considerable if the new sources of emissions exceeded SCAQMD emissions thresholds.

Project Impacts

AQMP

The 2003 AQMP, discussed previously, was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, and to return clean air to the region.

Projects that are considered to be consistent with the AQMP would not interfere with attainment, because this growth is included in the projections used to formulate 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.

Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of SCAG's Regional Comprehensive Plan and Guide (RCPG) are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP. Development of the proposed project is consistent with the land use designated in the Canoga Park-Winnetka-Woodland Hills-West Hills Community Plan, which, along with 34 other community plans, comprise the Land Use Element of the City of Los Angeles General Plan. The Community Plan designates the project site as Low Residential, which allows a range of residential densities from 4 to 9 dwelling units per acre, or 24 to 54 dwelling units on the project site. The project Applicant is requesting a zone change pursuant to Los Angeles Municipal Code (LAMC) Section 12.32B from the existing zoning designation of R1-1 (Single Family Residential) to [Q] RD6 (Restricted Density Multiple Dwelling Zone). As the proposed project consists of 37 units, it would be consistent with the Community Plan land use designation. The 'Q' qualified classification shall be imposed on a permanent basis to insure that only detached single family residential units can be developed on the proposed project site. The [Q] RD6 zoning is consistent with the existing General Plan designation. Since SCAG's regional growth forecasts are based upon, among other things, land uses specified in city general plans, the proposed project would also be consistent with the SCAG's regional forecast projections. In turn, the proposed project would also be consistent with the AQMP growth projections.

In addition, SCAG's regional forecasts indicate an increase in housing in the City of Los Angeles from approximately 1,311,134 households in 2005 to 1,372,873 households in 2010 (SCAG 2004). By generating approximately 37 detached, single-family homes, the proposed project would contribute an incremental portion to this growth in housing. Furthermore, SCAG estimates that the housing for Los Angeles County will increase from 3,235,358 households in 2005 to 3,404,016 households in 2010. As discussed previously, because the development of the proposed project is consistent with the land use designated in the Canoga Park-Winnetka-Woodland Hills-West Hills Community Plan Area of the City General Plan, the proposed project would also be consistent with the SCAG's regional forecast projections because these forecasts are based upon, among other things, land uses specified in city plans. Thus, the housing growth resulting from the proposed project would be consistent with the SCAG's housing forecasts for the City and the County, and would not increase the local housing within the City or County beyond those already projected by the SCAG. Therefore, the proposed project would be consistent with the AQMP housing forecasts for Los Angeles County, and would not jeopardize attainment of State and federal ambient air quality standards in the Basin.

Based on this information, the proposed project would not impair implementation of the AQMP, and this impact would be less than significant.

Construction Impacts

During construction of the proposed project, three basic types of activities would be expected to occur at the Project Site. First, demolition of existing structures on the project site would occur and debris from the demolished buildings would be exported to a landfill. Secondly, the project site would be prepared, excavated, and graded to accommodate the building foundations. Finally, the 37 proposed single-family homes would be constructed. Overall, construction of the proposed project would occur over a 24-month period, with the beginning of construction beginning approximately at the end of 2006.

Construction of the proposed project would generate pollutant emissions from the following construction activities: (1) demolition, grading, and excavation, (2) construction workers traveling to and from project site, (3) delivery and hauling of construction supplies and debris to and from the project site, (4) the fuel combustion by onsite construction equipment, and (5) the application of architectural coatings. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Construction activities involving site preparation and grading would primarily generate PM_{10} emissions. Mobile source emissions (use of diesel-fueled equipment onsite, and traveling to and from the project site) would primarily generate NOx emissions. The application of architectural coatings would primarily result in the release of VOC emissions. The amount of emissions generated on a daily basis would vary, depending on the amount and types of construction activities occurring at the same time.

The analysis of daily construction emissions has been prepared utilizing the URBEMIS 2002 computer model recommended by the SCAQMD. Due to the construction time frame and the normal day-to-day variability in construction activities, it is difficult, if not impossible, to precisely quantify the daily emissions associated with each phase of the proposed construction activities. Nonetheless, Table V.C-4 identifies daily emissions that are estimated to occur on peak construction days. These calculations assume that appropriate dust control measures would be implemented during each phase of development as required by SCAQMD Rule 403—Fugitive Dust.

As shown in Table V.C-4, the highest levels of VOC (47.48 pounds/day) would be generated during the 2007 building construction phase, while the highest levels of NOx (33.55 pounds/day) and SOx (0.01 pounds/day) would be generated during the 2006 demolition phase. The highest levels of CO (42.77 pounds/day) and PM_{10} (6.82 pounds/day) would be generated during the 2007 grading/excavation phase. However, none of the emissions generated during the demolition, grading/excavation, and building phases for the proposed project would exceed the SCAQMD construction emissions thresholds for VOC, NOx, CO, Sox, and PM_{10}, which are 75, 100, 550, 150, and 150 pounds/day, respectively. Therefore, impacts associated with regional construction-related emissions would be less than significant.

Table V.C-4
Estimated Daily Construction Emissions

Emissions Source	Emissions in Pounds per Day				
	VOC	NOx	CO	SOx	PM_{10}
Demolition Phase (2006)					
Fugitive Dust	--	--	--	--	0.25
Off-Road Diesel	4.57	32.85	35.06	--	1.36
On-Road Diesel	0.02	0.55	0.09	0.01	0.01
Worker Trips	0.06	0.15	1.48	0.00	0.01
Total Emissions	***4.65***	***33.55***	***36.63***	***0.01***	***1.63***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	No	No	No	No	No
Site Grading and Excavation Phase (2007)					
Fugitive Dust	--	--	--	--	38.00
Off-Road Diesel Equipment	5.04	31.32	42.34	--	1.14
On-Road Diesel Equipment	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.04	0.02	0.43	0.00	0.01
Total Emissions	***5.08***	***31.34***	***42.77***	***0.00***	***39.15***
Mitigation[b]	0.00	0.00	0.00	0.00	(32.33)
Total Emissions after Mitigation	***5.08***	***31.34***	***42.77***	***0.00***	***6.82***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	No	No	No	No	No
Building Construction Phase (2007)					
Building Construction Off-Road Diesel Equipment	4.66	31.12	37.40	--	1.19
Building Construction Worker Trips	0.16	0.09	1.91	0.00	0.03
Architectural Coatings Off-Gas [a]	42.50	--	--	--	--
Architectural Coatings Worker Trips	0.16	0.06	1.91	0.00	0.03
Total Emissions	***47.48***	***31.30***	***41.22***	***0.00***	***1.25***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	No	No	No	No	No
Building Construction Phase (2008)					
Building Construction Off-Road Diesel Equipment	4.66	30.00	37.95	--	1.05
Building Construction Worker Trips	0.15	0.08	1.78	0.00	0.03
Asphalt Off-Gas	0.21	--	--	--	--
Asphalt On-Road Diesel	0.04	0.76	0.15	0.00	0.02
Total Emissions	***5.06***	***30.84***	***39.88***	***0.00***	***1.10***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	No	No	No	No	No

[a] *Calculated assuming that up to 20 gallons of paint would be used per day and that each gallon of paint would generate 2.08 pounds of VOC per gallon of paint in accordance with SCAQMD Rule 1113.*

[b] *Mitigation consists of dust control measures as required by SCAQMD Rule 403—Fugitive Dust.*

Source: Christopher A. Joseph & Associates, January 2006. Calculation sheets are provided in Technical Appendix F.

Operational Impacts

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities on the Project Site after occupation. Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices, and the operation of landscape maintenance equipment. Mobile emissions would be generated by the motor vehicles traveling to and from the project site.

The analysis of daily operational emissions from the proposed project has been prepared utilizing the URBEMIS 2002 computer model recommended by the SCAQMD. The URBEMIS air quality model is a land-use based model that generates air emissions based on the type and density of the proposed land uses, and is influenced by other factors such as trip generation rates, proximity to mass transit, local demographics, and the extent of pedestrian friendly amenities. Factors such as the Proposed Project's location within the southwest San Fernando Valley of Los Angeles, the project's proximity to MTA bus routes, etc., serve to influence the air emissions that would generated by the proposed project. The results of these calculations, and associated SCAQMD thresholds, are presented in Table V.C-5.

Table V.C-5
Estimated Future (2008) Daily Operational Emissions

Emissions Source	Emissions in Pounds per Day				
	VOC	NOx	CO	SOx	PM_{10}
Project Emissions					
Water and Space Heating, and Cooking Appliances	0.04	0.46	0.20	0.00	0.00
Landscape Maintenance Equipment	0.16	0.00	1.18	0.01	0.00
Consumer Products	1.81	--	--	--	--
Architectural Coatings	0.35	--	--	--	--
Mobile (Vehicle) Sources	2.81	2.22	32.72	0.02	3.40
Total Emissions	***5.17***	***2.68***	***34.10***	***0.03***	***3.40***
SCAQMD Thresholds	55.00	55.00	550.00	150.00	150.00
Significant Impact?	No	No	No	No	No
Source: Christopher A. Joseph & Associates, January 2006. Calculation sheets are provided in Technical Appendix F.					

As shown in Table V.C-5, the proposed project would not exceed the established operational threshold levels for VOC, NOx, CO, SOx, and PM_{10}, which are 55, 55, 550, 150, and 150 pounds/day, respectively. Therefore, impacts associated with regional operational emissions from the proposed project would be less than significant.

Local CO Concentrations

Motor vehicles are the primary source of pollutants in the project vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. For this analysis, CO concentrations were calculated based on the simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and utilized by the SCAQMD. The results of these calculations are presented in Tables V.C-6 and V.C-7 for future CO concentrations with and without gated access for the proposed project, respectively.

Table V.C-6

Future (2007) Localized Carbon Monoxide Concentrations

Intersection	8-Hour CO Concentrations in Parts per Million[a]		
	25 feet	50 feet	100 feet
Dumetz Road and San Feliciano Drive	3.8	3.7	3.7
Dumetz Road and Topanga Canyon Boulevard	4.8	4.5	4.2
Mulholland Drive and San Feliciano Drive	3.9	3.8	3.7
Mulholland Drive and Mulholland Highway	4.2	4.0	3.9
Mulholland Drive and Topanga Canyon Boulevard	4.7	4.4	4.1

[a] National and State 8-hour standards are 9.0 parts per million.
Traffic Information Source: Crain & Associates of Southern California, November 2004.
Source: Christopher A Joseph and Associates, 2005. Calculation data and results are provided in Technical Appendix F.

Table V.C-7

Future Localized Carbon Monoxide Concentrations

Intersection	8-Hour CO Concentrations in Parts per Million[a]		
	25 feet	50 feet	100 feet
Dumetz Road and San Feliciano Drive	3.8	3.7	3.7
Dumetz Road and Topanga Canyon Boulevard	4.8	4.5	4.2
Mulholland Drive and San Feliciano Drive	3.9	3.8	3.7
Mulholland Drive and Mulholland Highway	4.2	4.0	3.9
Mulholland Drive and Topanga Canyon Boulevard	4.7	4.4	4.1

[a] National and State 8-hour standards are 9.0 parts per million.
Traffic Information Source: Crain & Associates of Southern California, November 2004.
Source: Christopher A Joseph and Associates, 2005. Calculation data and results are provided in Technical Appendix F.

As shown in Tables V.C-6 and V.C-7, future CO concentrations near the study intersections would not exceed national or State ambient air quality standards. Therefore, CO hotspots would not occur near these intersections in the future with operation of the proposed project, and impacts related to local CO concentrations at these intersections would be less than significant.

CUMULATIVE IMPACTS

The geographic context for the air quality cumulative impacts is SRA 6 of the Basin, which covers the West San Fernando Valley area. The analysis accounts for all anticipated cumulative growth within this geographic area, including ambient growth along with development of the related projects provided in Table IV-3 (List of Related Projects) in Section IV (Environmental Setting) of this EIR. The significance of cumulative air quality impacts is typically determined according to the project methodology employed by the SCAQMD.

AQMP Consistency

Cumulative development is not expected to result in a significant impact in terms of conflicting with, or obstructing implementation of, the 2003 AQMP. As discussed previously, growth considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified in the Growth Management Chapter of the RCPG, implementation of the AQMP will not be obstructed by such growth. As growth in the Basin has not exceeded these projections, this is considered to be a less-than-significant cumulative impact. In addition, as discussed previously, the population growth resulting from the proposed project would be consistent with the growth projections of the AQMP. Therefore, the project's contribution to the cumulative impact to the AQMP would not be cumulatively considerable and, therefore, would be less than significant.

Construction Impacts

Because the Basin is currently in nonattainment for ozone, CO, and PM_{10}, cumulative development could violate an air quality standard or contribute to an existing or projected air quality violation. Therefore, this is considered to be a significant cumulative impact. With regard to determining the significance of the proposed project contribution, the SCAQMD neither recommends quantified analyses of cumulative construction emissions nor provides methodologies or thresholds of significance to be used to assess cumulative construction impacts. According to the SCAQMD, individual construction projects that exceed the SCAQMD recommended daily thresholds for project-specific impacts would be considered to cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment. As discussed previously, construction of the proposed project would not exceed the SCAQMD's thresholds of significance for VOC, NOx, CO, SOx, and PM_{10}. Consequently, the contribution of daily construction emissions by the Proposed Project would not be cumulatively considerable. Thus, the cumulative impact of the Proposed Project for construction emissions would be less than significant.

Operational Impacts

With regard to daily operational emissions and the cumulative net increase of any criteria pollutant for which the region is in nonattainment, there would be a cumulative significant impact due to nonattainment of ozone, CO, and PM_{10} standards in the Basin. With respect to operational emissions, the SCAQMD has indicated that if an individual project results in project emissions of criteria pollutants (CO, VOC, NOx, SOx, and PM_{10}) that exceed the SCAQMD recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the proposed project region is in nonattainment under an applicable federal or state ambient air quality standard. As discussed previously, operational emissions associated with the proposed project would not exceed the SCAQMD's thresholds of significance for VOC, NOx, CO, SOx, and PM_{10}. Consequently, the contribution of daily operational emissions by the proposed project would not be cumulatively considerable. Thus, the cumulative impact of the proposed project for operational emissions would be less than significant.

Localized CO Impacts

Cumulative development is not expected to expose sensitive receptors to substantial pollutant concentrations. As discussed previously, the future CO concentrations at the study intersections in 2008 are based on the projected future traffic volumes from the study intersections contained in the traffic study for the proposed project, which takes into account emissions from the proposed project, future ambient growth, and related projects in the project area. As shown in Tables V.C-6 and V.C-7, future 8-hour CO concentrations near the study intersections would not exceed national or State ambient air quality standards. Therefore, CO hotspots would not occur near these intersections in the future, and this cumulative impact would be less than significant; no significant project cumulative impact would occur for CO. It is also unlikely that future projects will result in long-term future exposure of sensitive receptors to substantial pollutant concentrations because CO levels are projected to be lower in the future due to improvements in vehicle emission rates predicted by the ARB. Therefore, the cumulative impact of the proposed project is considered to be less than significant.

PROJECT ENHANCEMENTS

Project air quality impacts with respect to short-term construction and long-term operational activities would be less than significant and mitigation measures are not required under CEQA. Nevertheless, the following project enhancements , which correspond to measures that have been inputted into the URBEMIS 2002 computer model to estimate the daily construction emissions of the Proposed Project, are recommended pursuant to the requirements under SCAQMD Rule 403:

C-1 Soil stabilizers shall be applied to inactive construction areas.

C-2 Ground cover in disturbed areas shall be quickly replaced.

C-3 Exposed surfaces shall be watered twice daily.

C-4 All haul roads shall be watered twice daily.

C-5 All stock piles of debris, dirt, or rusty materials shall be covered with a tarp.

C-6 Vehicle speed on unpaved roads shall be reduced to less than 15 miles per hour (mph).

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed project's impacts on air quality would be less than significant without mitigation. The implementation of the recommended project enhancements, above, would further reduce the proposed project's impacts.