
IV. ENVIRONMENTAL IMPACT ANALYSIS

C. AIR QUALITY

ENVIRONMENTAL SETTING

This section examines the degree to which the proposed Sepulveda/Rosecrans Site Rezoning and Plaza El Segundo Development 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 Sepulveda/Rosecrans Site Rezoning and Plaza El Segundo Development 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. “Concentrations” are measured in parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Regulatory Setting

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 United States Environmental Protection Agency (USEPA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the Air Quality Management Districts at the regional and local levels.

United States Environmental Protection Agency (USEPA)

The USEPA is responsible for enforcing the Federal CAA. The USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the Federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by the CARB.

California Air Resources Board (CARB)

In California, the CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for meeting the state requirements of the Federal CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as

amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. The CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The CARB established passenger vehicle fuel specifications, which became effective in March 1996. The CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

South Coast Air Quality Management District (SCAQMD)

The South Coast Air Quality Management District (SCAQMD) monitors air quality within a portion of the four-county South Coast Air Basin (SCAB), which includes the proposed Sepulveda/Rosecrans Rezoning site. The 1977 Lewis Air Quality Management Act created the SCAQMD to coordinate air quality planning efforts throughout southern California. This Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in southern California. Under the Act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the SCAB. Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing and enforcing programs designed to attain and maintain State and federal ambient air quality standards in the district. Programs that were developed include air quality rules and regulations that regulate stationary source, area source, point source and certain mobile source emissions. The SCAQMD is also responsible for establishing permitting requirements for stationary sources and ensuring that new, modified or relocated stationary sources do not create net emission increases and therefore, are consistent with the region's air quality goals.

The SCAQMD has jurisdiction over an approximately 10,743 square mile area of the SCAB. This area includes all of Orange County, Los Angeles County (except for the Antelope Valley), the western urbanized portions of San Bernardino County, and the western and Coachella Valley portions of Riverside County. The SCAB is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east; and the San Diego County line to the south (Figure IV.C-1). Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the SCAB.

Attainment Status

The CCAA requires the CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State

Figure IV.C-1, SCAB Boundary Map

standard for a pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard, and not used as a basis for designating areas as non-attainment.

Under the CCAA, the Los Angeles County portion of the SCAB is designated as a non-attainment area for ozone, carbon monoxide, and respirable particulate matter. The air basin is designated as an attainment area for nitrogen dioxide, sulfur dioxide, sulfates, and lead.¹

Air Quality Management Plan (AQMP)

All areas designated as non-attainment under the CCAA are required to prepare plans showing how the area would meet the State air quality standards by its attainment dates. The Air Quality Management Plan (AQMP) is the region's plan for improving air quality in the region. In response to Federal and State Clean Air Act requirements to bring air emissions within healthful levels, the SCAQMD has prepared a series of air quality management plans, the most recent of which was adopted by SCAQMD's Governing Board in August 2003 (2003 AQMP). The 2003 AQMP employs up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources including stationary sources, on-road and off-road mobile sources and area sources.

The 2003 AQMP is an update to the 1997 AQMP, which was amended in 1999. The 1997 AQMP was designed to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of the SCAQMD, to return clean air to the region by 2010, and to minimize the impact on the economy. The 2003 AQMP is generally similar to the structure of the 1997 AQMP. The key improvements incorporated into the AQMP are summarized as follows:

1. Revised emissions inventory projections using 1997 as the base year, the CARB on-road motor vehicle emissions model EMFAC2002, and SCAG 2001 Regional Transportation Plan (RTP) forecast assumptions;
2. Revised control strategy that updates remaining control measures from the 1997/1999 State Implementation Plans (SIP) and incorporation of new control measures based on current technology assessments;
3. Reliance on 1997 ozone episodes and updated modeling tools for attainment demonstration relative to ozone and PM₁₀; and

¹ California Air Resources Board: *Proposed Area Designations and Maps*, September 2000.

4. An initial assessment of progress toward the new federal 8-hour ozone and PM_{2.5} standards.²

Environmental review of individual projects within the SCAB must demonstrate that daily construction and operational emissions thresholds, as established by the SCAQMD, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations. Projects that are considered to be consistent with AQMP growth projections should not interfere with attainment and should not contribute to the exceedance of an existing federal or State air quality standard, because such growth is included in the projections utilized in the formulation of the AQMP.

National and State Ambient Air Quality Standards

As required by the Federal CAA, the NAAQS have been established for six major air pollutants: carbon monoxide, nitrogen oxides, ozone, particulate matter, sulfur oxides, and lead. Pursuant to the CCAA, the State of California has also established ambient air quality standards, known as California Ambient Air Quality Standards (CAAQS). These standards are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particulates. Since the CAAQS are more stringent than the NAAQS, the CAAQS are used as the comparative standard in the air quality analysis contained in this report.

Both State and federal standards are summarized in Table IV.C-1. The “primary” standards have been established to protect the public health. The “secondary” standards are intended to protect the nation’s welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the general welfare.

Pollutants and Effects

Air quality studies generally focus on the five pollutants that are most commonly measured and regulated: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and respirable particulate matter (PM₁₀).

Carbon Monoxide

Carbon monoxide (CO), a colorless and odorless gas, interferes with the transfer of oxygen to the brain. It can cause dizziness and fatigue, and can impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. In urban areas, CO is

² *In 1997, US EPA promulgated a new Federal 8-hour standard for ozone and a 24-hour and an annual average standard for fine particulate matter (PM_{2.5}). The implementation guidelines for the new standards have not yet been finalized, and the SIP to demonstrate attainment with these new standards is expected to be due in 2007.*

emitted by motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. Automobile exhausts release most of the CO in urban areas. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient carbon monoxide concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions³ are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest CO concentrations measured in the SCAB are typically recorded during the winter.

Table IV.C-1
State and National Ambient Air Quality Standards

Pollutant	Averaging Period	California Standard	Federal Standards	
			Primary	Secondary
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	0.12 ppm (235 µg/m ³)	Same as Primary Standard
	8 Hour	---	0.08 ppm (157 µg/m ³)	
Respirable Particulate Matter (PM ₁₀)	Annual Geometric Mean	30 µg/m ³	---	Same as Primary Standard
	24 Hour	50 µg/m ³	150 µg/m ³	
	Annual Arithmetic Mean	---	50 µg/m ³	---
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	9.0 ppm (10 mg/m ³)	None
	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	---	0.053 ppm (100 µg/m ³)	Same as Primary Standard
	1 Hour	0.25 ppm (470 µg/m ³)	---	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	---	0.03 ppm (80 µg/m ³)	---
	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	---
	3 Hour	---	---	0.5 ppm (1300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	---	---

Source: California Air Resources Board, Federal and State Air Quality Standards 1999 (1/25/99).

³ Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air.

Ozone

Ozone (O₃), a colorless toxic gas, is the chief component of urban smog. O₃ enters the blood stream and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. O₃ also damages vegetation by inhibiting growth. Although O₃ is not directly emitted, it forms in the atmosphere through a chemical reaction between reactive organic gas (ROG) and nitrogen oxides (NO_x) under sunlight.⁴ O₃ is present in relatively high concentrations within the SCAB, and the damaging effects of photochemical smog are generally related to the concentration of O₃. Meteorology and terrain play major roles in ozone formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smog-producing gases is the automobile.

Nitrogen Dioxide

Nitrogen dioxide, a brownish gas, irritates the lungs. It can cause breathing difficulties at high concentrations. Like O₃, NO₂ is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO₂ are collectively referred to as nitrogen oxides (NO_x) and are major contributors to ozone formation. NO₂ also contributes to the formation of PM₁₀ of PM₁₀. At atmospheric concentration, NO₂ is only potentially irritating. In high concentrations, the result is a brownish-red cast to the atmosphere and reduced visibility. There is some indication of a relationship between NO₂ and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 ppm.

Sulfur Dioxide

Sulfur dioxide (SO₂) is a product of high-sulfur fuel combustion. Main sources of SO₂ are coal and oil used in power stations, in industries, and for domestic heating. Industrial chemical manufacturing is another source of SO₂. SO₂ is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO₂ can also cause plant leaves to turn yellow, as well as erode iron and steel. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. SO₂ concentrations have been reduced to levels well below the state and national standards, but further reductions in emissions are needed to attain compliance with standards for sulfates and PM₁₀, of which SO₂ is a contributor.

Suspended Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM₁₀ and PM_{2.5}

⁴ ROG and NO_x are emitted from automobiles and industrial sources.

represent fractions of particulate matter. Respirable particulate matter (PM₁₀) refers to particulate matter less than 10 microns in diameter, about one-seventh the thickness of a human hair. Fine particulate matter (PM_{2.5}) refers to particulate matter that is 2.5 microns or less in diameter, roughly 1/28th the diameter of a human hair. Major sources of PM₁₀ include motor vehicles; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning, industrial sources, windblown dust from open lands; and atmospheric chemical and photochemical reactions. PM_{2.5} results from fuel combustion (from motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, PM_{2.5} can be formed in the atmosphere from gases such as sulfur dioxide, nitrogen oxides, and volatile organic compounds.

PM₁₀ and PM_{2.5} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM₁₀ and PM_{2.5} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas, particles 2.5 to 10 microns in diameter tend to collect in the upper portion of the respiratory system, particles 2.5 microns or less are so tiny that they can penetrate deeper into the lungs and damage lung tissues.⁵ Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Regional and Local Setting

Climate and Topography

The mountains and hills within the SCAB contribute to the variation of rainfall, temperature, and winds throughout the region. Within the Sepulveda/Rosecrans Rezoning Site and its vicinity, the average wind speed, as recorded at the Lennox Wind Monitoring Station, is approximately 4.65 miles per hour. Wind in the vicinity of the Sepulveda/Rosecrans Rezoning Site predominantly blows from the southwest.⁶

The annual average temperature in the project area is approximately 65 degrees Fahrenheit. Temperatures range from the high 40s to high 60s during the winter and from the low 60s to high 80s during the summer. Total precipitation in the project area averages approximately 14.79 inches

⁵ *The NAAQS for PM_{2.5} was adopted in 1997. Presently, no methodologies for determining impacts relating to PM_{2.5} have been developed or adopted by federal, state, or regional agencies. Additionally, no strategies or mitigation programs for PM_{2.5} have been developed or adopted by Federal, State, or regional agencies. Currently, this standard is not enforceable. However, the standard may be reinstated in the future. Thus, this air quality analysis does not analyze PM_{2.5}.*

⁶ *Based on data from the Lennox wind monitoring station.*

annually. Precipitation occurs mostly during the fall, winter and spring months and relatively infrequently during the summer. Precipitation is approximately 0.2 inches during the summer months and approximately 9.0 inches during the remaining months.

Air Pollution Potential

The Sepulveda/Rosecrans Rezoning Site is located within the Los Angeles County portion of the SCAB. Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the SCAB.

The SCAB is an area of high air pollution potential due to its climate and topography. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The SCAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usual mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The SCAB experiences frequent temperature inversions. Although the temperature of air typically decreases with height, under inversion conditions, air temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and nitrogen dioxide react under strong sunlight, creating pollution, commonly referred to as smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains.

During the fall and winter, air quality problems are created due to carbon monoxide and nitrogen dioxide emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). Morning levels are relatively high due to the large number of cars during the commute and colder temperatures. The high levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SCAB are associated with heavy traffic. Nitrogen dioxide (NO₂) levels are also generally higher during autumn or winter days. High levels of NO₂ in the fall and winter usually occur on days with summer-like conditions.

Air Monitoring Data

The SCAQMD monitors air quality conditions at 37 locations throughout the SCAB. The Sepulveda/Rosecrans Rezoning Site is located in the SCAQMD's Air Monitoring Area No. 3, which is

served by the Southwest Coastal LA County Monitoring Station, located near the intersection of 120th Street and La Cienega Boulevard⁷, in the City of Hawthorne, approximately two miles northeast of the Sepulveda/Rosecrans Rezoning Site (Figure IV.C-2). Historical data from the Southwest Coastal LA County Monitoring Station was used to characterize existing conditions within the vicinity of the Sepulveda/Rosecrans Rezoning Site and to establish a baseline for estimating future conditions with and without the proposed Sepulveda/Rosecrans Site Rezoning and Plaza El Segundo Development project.

Criteria pollutants monitored at the Southwest Coastal LA County Monitoring Station (Hawthorne Monitoring Station) include ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and respirable particulate matter (PM₁₀). Table IV.C-2 shows the number of violations recorded at this monitoring station during the 2000 to 2002 period. The CAAQS for the criteria pollutants are also shown in Table IV.C-2. As Table IV.C-2 indicates, criteria pollutants CO, NO₂, and SO₂ did not exceed the CAAQS between the years 2000 and 2002. However, during the 2000 to 2002 period, O₃ exceeded the State Standard at least once in 2000 and 2001, and PM₁₀ exceed the State standard 8 to 12 times.

Table IV.C-2
2000 to 2002 Criteria Pollutant Violations – Hawthorne Monitoring Station

Pollutant	State Standard	Number of Days Above State Standard		
		2000	2001	2002
Ozone	0.09 ppm (1-hour)	1	1	0
Carbon Monoxide	9.0 ppm (8-hour avg.)	0	0	0
Nitrogen Dioxide	0.25 ppm (1-hour)	0	0	0
Sulfur Dioxide	0.04 ppm (24-hour avg.)	0	0	0
PM10	50 µg/m ³ (24-hour avg.)	9	8	12

Source: South Coast Air Quality Management District, see Appendix D.

⁷ Personal communication with Dr. Charles Blankson, CEQA Section, SCAQMD, November 12, 2003.

Figure IV.C-2, Monitoring Stations

Carbon Monoxide

Background Carbon Monoxide Conditions

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed State and/or federal standards are termed CO “hotspots”. The SCAQMD recommends the use of CALINE4, a dispersion model developed by the California Department of Transportation (Caltrans) for predicting CO concentrations near roadways. CALINE4 adds roadway-specific CO emissions calculated from peak hour traffic volumes to ambient CO air concentrations. For this analysis, CO concentrations were calculated based on a simplified CALINE4 procedure, developed by the Bay Area AQMD and accepted for use by SCAQMD. This methodology uses conservative estimates of meteorological conditions, consisting of wind speed of less than one meter per second and extreme atmospheric stability, and thus provides a screening of maximum CO concentrations. The SCAQMD also recommends that the CO analysis focus on “sensitive receptors”.

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the types of population groups and the activities involved. CARB has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive population groups. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and outdoor park and recreation facilities. These locations are called sensitive receptors.

Within the immediate vicinity of the site, there are only two sensitive receptors (Figure IV.C-3). These are “The Lakes at El Segundo Golf Course”, located approximately one-half mile north of the proposed Sepulveda/Rosecrans Rezoning Site, to the immediate east of Sepulveda Boulevard (within the City of El Segundo), and a residential area located at the southwestern corner of the intersection of Rosecrans Avenue and Sepulveda Boulevard (within the City of Manhattan Beach). Other sensitive receptors located within a two mile radius of the proposed Sepulveda/Rosecrans Rezoning Site include residences and schools located in the cities of Manhattan Beach, Hawthorne, and El Segundo. The boundaries for this area are: Sepulveda Boulevard on the west, Aviation Boulevard on the east, El Segundo Boulevard on the north, and Manhattan Beach Boulevard on the south. Eight major intersections within this boundary are currently operating at traffic LOS E or F during peak hours. Table IV.C-3 presents the carbon monoxide concentration levels at the eight intersections representing sensitive receptor locations in the vicinity of the proposed Sepulveda/Rosecrans Rezoning Site.

Sources utilized to estimate existing CO levels at the study intersection include: existing CO level data from the Southwest Coastal LA County monitoring station (Hawthorne), future predictions in the *CEQA Air Quality Handbook*, traffic counts and observations conducted by the Project traffic engineer, and

the CALINE4 model. As shown in Table IV.C-3, existing CO concentrations near these intersections do not exceed identified State or federal standards from 50 feet, 100 feet, and 300 feet from the edge of the roadway intersections.

**Table IV.C-3
Existing Carbon Monoxide (CO) Concentrations (parts per million)**

Intersection	50 Feet		100 Feet		300 Feet	
	1-Hour ¹	8-Hour ²	1-Hour ¹	8-Hour ²	1-Hour ¹	8-hour ²
El Segundo Blvd & Sepulveda Blvd	8.6	7.2	8.2	6.9	7.6	6.5
El Segundo Blvd & Aviation Blvd	7.9	6.8	7.7	6.6	7.4	6.4
Rosecrans Ave & Sepulveda Blvd	8.6	7.3	8.3	7.0	7.6	6.5
Rosecrans Ave & Aviation Blvd	8.3	7.0	7.9	6.8	7.5	6.4
Marine Ave & Sepulveda Blvd	8.2	7.0	7.9	6.7	7.4	6.4
Marine Ave & Aviation Blvd	8.2	6.9	7.8	6.7	7.4	6.4
Manhattan Beach Blvd & Sepulveda Blvd	8.3	7.0	8.0	6.8	7.5	6.4
Manhattan Beach Blvd & Aviation Blvd	8.1	6.9	7.8	6.7	7.4	6.4

1. State standard is 20.0 parts per million. Federal standard is 35 parts per million.
2. State and federal standard is 9.0 parts per million.
Source: MPS, February 2004. Emissions calculations are provided in Appendix E.

ENVIRONMENTAL IMPACTS

Threshold of Significance

The CEQA Guidelines (Section 15064.7) provide that, when applicable, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance. The following are the significance criteria that the SCAQMD has established to determine project impacts.

Construction

The proposed Sepulveda/Rosecrans Site Rezoning and Plaza El Segundo Development would have a significant impact if:

- Daily construction emissions were to exceed the SCAQMD construction emission thresholds for CO, ROG, NO_x, SO_x, or PM₁₀. The SCAQMD significance thresholds for construction activities are provided in Table IV.C-4.

Table IV.C-4
SCAQMD Daily Construction and Operation Emissions Thresholds

Criteria Pollutants	Pounds Per Day	
	Construction	Operations
Carbon Monoxide (CO)	550	550
Reactive Organic Gas (ROG)	75	55
Nitrogen Oxides (NO _x)	100	55
Sulfur Oxides (SO _x)	150	150
Particulates (PM ₁₀)	150	150

Source: South Coast Air Quality Management District.

Operation

The proposed Sepulveda/Rosecrans Site Rezoning and Plaza El Segundo Development would have a significant impact if:

- Daily operational emissions were to exceed the SCAQMD operational emissions thresholds for CO, ROG, NO_x, SO_x, or PM₁₀. The SCAQMD significance thresholds for operational emissions are provided in Table IV.C-4.
- Project-related traffic causes CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour period are 20.0 ppm and 9.0 ppm, respectively. If CO concentrations currently exceed the CAAQS, then an incremental increase of 1.0 ppm over “no project” conditions for the one-hour period would be considered a significant impact. An incremental increase of 0.45 ppm over the “no project” conditions for the eight-hour period would be considered significant.⁸

Project Impacts

Construction Phase Impacts

Sepulveda/Rosecrans Site Rezoning

Construction Emissions

Construction would generate pollutant emissions from the following construction activities: 1) grading excavation and site clearance, 2) construction workers travel to and from the Sepulveda/Rosecrans Rezoning Site, 3) delivery and hauling of construction supplies and debris to and from the Sepulveda/Rosecrans Rezoning Site, 4) fuel combustion by on-site construction equipment, and 5)

⁸ Consistent with the SCAQMD Regulation XIII definition of a significant impact.

building and roadway construction and architectural coating. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other contaminants. However, PM₁₀ is the most significant source of air pollution from construction, particularly during site preparation and grading.

Table IV.C-5 shows the estimated maximum daily emissions from typical⁹ construction activities associated with the proposed Sepulveda/Rosecrans Site Rezoning. The construction activities analyzed represent the expected level of daily construction activity that would occur as the buildout of the Sepulveda/Rosecrans site progresses to the maximum level of development permitted under the proposed C-4 zone and include construction of the roadway system within the Sepulveda/Rosecrans Rezoning Site that is identified in the proposed Circulation Element (i.e., extension of Park Place between Sepulveda Boulevard and Nash Street and connection of Park Place to Hughes Way via Allied Way through the Sepulveda/Rosecrans Rezoning Site). Daily emissions were derived using URBEMIS 2002, a computer model for air quality analysis approved and recommended by the California Air Resources Board and SCAQMD. URBEMIS 2002 is a land use and transportation based computer model designed to estimate regional air emissions from new development projects. The model accounts for emissions associated with traffic generation for various land uses and all phases of construction activities, based on the latest emission factors (EMFAC 2002), as well as specific meteorological conditions and topography that characterize each particular air basin in California.

As presented in Table IV.C-5 maximum daily emissions from a typical construction project associated with the proposed Sepulveda/Rosecrans Site Rezoning will exceed SCAQMD's daily thresholds for CO, ROG, NO_x, and PM₁₀. Therefore, emissions of these pollutants would result in significant short-term impacts. However, daily emissions of SO_x would fall below the significance thresholds.

Table IV.C-5
Estimated Maximum Daily Construction Emissions (pounds per day) –
Sepulveda/Rosecrans Site Rezoning

Emission Source	CO	ROG	NO_x	SO_x	PM₁₀
Sepulveda/Rosecrans Site Rezoning Construction	576.43	235.42	430.57	0.00	27.33
SCAQMD Threshold	550	75	100	150	150
Exceeds Threshold?	YES	YES	YES	NO	YES
Source: MPS, July, 2004. Complete model output is contained in Appendix E to this EIR.					

⁹ Because specific construction projects that would be undertaken under the proposed Sepulveda/Rosecrans Site Rezoning, with the exception of the proposed Plaza El Segundo Development, are not known, a "typical" construction project was developed for this analysis. The typical construction project would result in the buildout of the Sepulveda/Rosecrans Rezoning Site at an even rate over time.

The Proposed Circulation Element Update EIR provides guidance for analysis of potential impacts associated with construction emissions for later projects that would implement the proposed Circulation Element Update. The proposed connection of Park Place between Sepulveda Boulevard and Nash Street and connection of Park Place to Hughes Way via Allied Way through the Sepulveda/Rosecrans Rezoning Site would constitute a project that implements the proposed Circulation Element Update policies. The roadway and intersections improvements that are part of the proposed Sepulveda/Rosecrans Site Rezoning are addressed in this EIR as a stand-alone analysis, not tiered from the Circulation Element Update EIR. However, the analysis presented above provides an assessment of project-specific construction emissions associated with the proposed Sepulveda/Rosecrans Site Rezoning that is in accordance with the guidance presented in the Proposed Circulation Element Update EIR.

Fugitive Dust Abatement

The Sepulveda/Rosecrans Site Rezoning will be subject to the provisions of SCAQMD Rule 403, Fugitive Dust. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust. Rule 403 requires the use of best available control measures to suppress fugitive dust emissions. The requirements of Rule 403 that are applicable to the proposed Sepulveda/Rosecrans Site Rezoning are as follows:

- (1) A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source.
- (2) A person conducting active operations within the boundaries of the South Coast Air Basin shall utilize one or more of the applicable best available control measures to minimize fugitive dust emission from each fugitive dust source type which is part of the active operation.
- (3) Any person in the South Coast Air Basin shall:
 - (A) Prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations; or
 - (B) Take at least one of the actions listed in Table IV.C-6 and:
 - i. Prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations; and

- ii. Remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease.¹⁰

Table IV.C-6
SCAQMD Rule 403 – Track-Out Control Options

(1)	Pave or apply chemical stabilization and sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that existing vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the USEPA as equivalent to the methods specified may be used.
Source: South Coast Air Quality Management District, Rule 403 – Fugitive Dust, Table 3. See Appendix H.	

Hazardous Materials

Air quality impacts associated with handling of hazardous materials during construction are addressed in Section IV.G, Hazards and Hazardous Materials, of this EIR.

Overlap of Construction and Operational Emissions

Under the proposed Sepulveda/Rosecrans Site Rezoning, a scenario could occur where construction is taking place on part of the Sepulveda/Rosecrans Rezoning Site at the same time that a development project consistent with the standards of the proposed C-4 zone (Plaza El Segundo) is operating on another part of the proposed Sepulveda/Rosecrans Rezoning Site. The following analysis addresses potential impacts of this scenario.

During this time frame, emissions from construction activity occur simultaneously with operational emissions associated with the proposed Plaza El Segundo. There is potential for these combined emissions to exceed applicable significance thresholds. The SCAQMD CEQA Air Quality Handbook does not prescribe a way to analyze combined impacts associated with construction and operations, and does not have specific thresholds for determining significance of such impacts. Nonetheless, for an analysis of impacts involving the overlap of construction and operation emissions, the SCAQMD typically recommends the use of its operational emissions thresholds, the more conservative of the two,¹¹ as a benchmark. As presented in Table IV.C-7, the combined emissions would exceed the SCAQMD's thresholds for CO, ROG, NO_x and PM₁₀, which would constitute a significant impact.

¹⁰ See Appendix E for the complete text of SCAQMD Rule 403.

¹¹ Telephone conversation with Steve Smith (Programs Supervisor) and James Koisumi (Air Quality Specialist), SCAQMD's CEQA Review Section, November 18, 2003.

Impacts associated with SO_x emissions would be below the significance threshold and less than significant.

Table IV.C-7
Estimated Maximum Daily Combined Emissions (pounds per day)
2007 - 2012

Emission Source	CO	ROG	NO_x	SO_x	PM₁₀
Plaza El Segundo Operation	1,793.87	131.83	170.48	1.06	162.76
Sepulveda/Rosecrans Rezoning Site Construction	576.43	235.42	430.57	0.00	27.33
Total	2,370.3	367.25	601.05	1.06	190.09
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Exceeds Threshold?	YES	YES	YES	NO	YES
Source: MPS, July, 2004.					

Plaza El Segundo Development

Estimated maximum daily emissions from construction activities associated with the proposed Plaza El Segundo Development were also derived using URBEMIS 2002. The construction scenario analyzed represents the specific construction site, equipment mix and schedule for the proposed Plaza El Segundo Development, as provided by the proposed Plaza El Segundo Development applicant and includes construction of proposed Circulation Element Update roadways within the Plaza El Segundo site (i.e., extension of Park Place easterly from Sepulveda Boulevard and connection of Park Place extension to current terminus of Allied Way at the northern boundary of the Plaza El Segundo Development site. As presented in Table IV.C-8 maximum daily emissions associated with the construction of the proposed Plaza El Segundo Development will exceed SCAQMD's daily thresholds for ROG and NO_x. Therefore, emissions of these pollutants would result in significant short-term impacts. However, daily emissions of CO, SO_x, and PM₁₀ would fall below the significance thresholds.

The analysis provided above regarding estimated construction emissions associated with the proposed Plaza El Segundo Development is in accordance with the mitigation measures for the Sepulveda/Rosecrans Site Rezoning as set forth below that require project specific analysis of construction emissions and no further analysis of this issue beyond that set forth in the preceding paragraphs would be required for the proposed Plaza El Segundo Development. The analysis demonstrates that construction of this component of the proposed Sepulveda/Rosecrans Site Rezoning would not result in new effects related to construction emissions that were not examined in the Program EIR for the proposed Sepulveda/Rosecrans Site Rezoning. Construction of the proposed Plaza El Segundo Development would result in emissions levels that would exceed SCAQMD thresholds for ROG and NO_x, while the analysis of the proposed Sepulveda/Rosecrans Site Rezoning identifies emission levels that would exceed SCAQMD thresholds for CO, ROG, NO_x and PM₁₀.

Table IV.C-8
Estimated Maximum Daily Construction Emissions (pounds per day) – Plaza El Segundo

Emission Source	CO	ROG	NO_x	SO_x	PM₁₀
Grading/Excavation/Site Clearance ^a	435.01	59.03	469.92	0.0	29.58
Building Construction ^b	492.77	287.55	456.61	0.0	19.75
SCAQMD Threshold	550	75	100	150	150
Exceeds Threshold?	NO	YES	YES	NO	NO
a. Includes emissions for fugitive dust, off- and on-road diesel, and worker trips. b. Includes emissions for off-road diesel, construction worker trips, architectural coatings, and asphaltting. Source: MPS/URBEMIS 2002, July 2004. Complete model output is contained in Appendix E to this EIR.					

Fugitive Dust Abatement

The Plaza El Segundo Development would also be subject to the provisions of SCAQMD Rule 403, Fugitive Dust, as discussed above.

Hazardous Materials

Air quality impacts associated with handling of hazardous materials during construction are addressed in Section IV.G, Hazards and Hazardous Materials, of this EIR.

Operational Impacts

Sepulveda/Rosecrans Site Rezoning

Regional Impacts

Buildout of the proposed Sepulveda/Rosecrans Rezoning Site to the limits permitted under the proposed C-4 zone, would encompass development that would generate a total of 28,334 daily trips. As with construction emissions, operational emissions associated with the proposed Sepulveda/Rosecrans Rezoning were estimated using the URBEMIS 2002 model, which considers the type of land use, vehicle mix, average trip lengths, and the latest emission factors (EMFAC 2002). The results, shown in Table IV.C-9, indicate that operation of the proposed Sepulveda/Rosecrans Site Rezoning in the buildout year of 2012 is anticipated to result in emissions that exceed the SCAMQD significance thresholds for four of the five criteria pollutants: CO, PM₁₀, ROG, and NO_x. Thus, a significant impact related to these four criteria pollutants would occur.

Table IV.C-9
Daily Regional Operational Emissions (2012) – Sepulveda/Rosecrans Site Rezoning
(pounds per day)

Emission Source	CO	ROG	NOx	SOx	PM10
Area Sources	2.90	0.51	8.18	0.00	0.01
Mobile Sources	1,787.28	136.05	165.75	1.36	207.99
Total Project Operations	1,790.17	136.57	173.93	1.36	208.00
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Exceeds Threshold?	YES	YES	YES	NO	YES
Source: MPS, July, 2004. Complete model output is contained in Appendix E to this EIR.					

Localized Impacts

CARB and SCAQMD project that background CO concentrations will be lower than existing conditions in year 2012 during the time frame of the proposed Sepulveda/Rosecrans Site Rezoning, due to stringent State and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both with and without the implementation of the proposed Sepulveda/Rosecrans Site Rezoning, CO emissions from vehicles are expected to be lower due to technological advances in vehicle emissions systems, as well as turnover in the vehicle fleet. In other words, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

As was done in assessing existing CO concentrations, the simplified CALINE4 procedure accepted by SCAQMD was used to provide a conservative estimate of future CO concentrations at 50, 100, and 300 feet from the study intersection near existing and/or planned sensitive receptors that could be impacted by future traffic generated by the proposed Sepulveda/Rosecrans Site Rezoning. Future CO concentrations modeled for the study intersections account for existing emissions, expected project emissions, and the emissions associated with future cumulative developments, as identified in the project traffic study. The results of CO air emissions modeling for the proposed Sepulveda/Rosecrans Site Rezoning are shown in Table IV.C-10. As shown, State and federal 1-hour and 8-hour CO standards would not be exceeded under this scenario and CO levels would be well below the more stringent state standards. Thus, impacts with respect to CO concentrations would be less than significant.

Table IV.C-10
Predicted Carbon Monoxide (CO) Concentrations (parts per million)
Future 2012 with Sepulveda/Rosecrans Site Rezoning

Intersection	50 Feet		100 Feet		300 Feet	
	1-Hour ¹	8-Hour ²	1-Hour ¹	8-Hour ²	1-Hour ¹	8-hour ²
El Segundo Blvd & Sepulveda Blvd	8.2	6.9	7.9	6.7	7.4	6.4
El Segundo Blvd & Aviation Blvd	7.7	6.6	7.5	6.5	7.3	6.3
Rosecrans Ave & Sepulveda Blvd	8.3	7.0	7.9	6.8	7.5	6.4
Rosecrans Ave & Aviation Blvd	8.1	6.9	7.8	6.7	7.4	6.4
Marine Ave & Sepulveda Blvd	8.0	6.8	7.7	6.6	7.3	6.3
Marine Ave & Aviation Blvd	7.9	6.7	7.6	6.5	7.3	6.3
Manhattan Beach Blvd & Sepulveda Blvd	8.0	6.8	7.8	6.6	7.4	6.4
Manhattan Beach Blvd & Aviation Blvd	7.9	6.7	7.6	6.5	7.3	6.3

1. State standard is 20.0 parts per million. Federal standard is 35 parts per million.
2. State and federal standard is 9.0 parts per million.
Source: MPS, February 2004. Emissions calculations are provided in Appendix E.

Plaza El Segundo Development

Regional Impacts

Long-term project emissions would be predominantly generated by motor vehicles. According to the traffic report prepared for the proposed Plaza El Segundo Development, the development is anticipated to generate 19,151 daily trips. As with construction emissions, operational emissions were also estimated using URBEMIS 2002. The results, shown in Table IV.C-11, indicate that operation of the proposed Plaza El Segundo is anticipated to result in emissions that exceed SCAQMD significance thresholds for four of the five criteria pollutants: CO, PM₁₀, ROG, and NO_x. Thus, a significant impact related to these four criteria pollutants is anticipated.

Table IV.C-11
Daily Regional Operational Emissions (2007) – Plaza El Segundo
(pounds per day)

Emission Source	CO	ROG	NO _x	SO _x	PM ₁₀
Plaza El Segundo Operation	1,793.87	131.83	170.48	1.06	162.76
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Exceeds Threshold?	YES	YES	YES	NO	YES

Source: MPS, July, 2004.

Localized Impacts

CARB and SCAQMD project that CO concentrations will be lower than existing conditions in year 2007 (Plaza El Segundo operation), due to stringent State and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future, both with and without the implementation of the Plaza El Segundo Development, CO emissions from vehicles are expected to be

lower due to technological advances in vehicle emissions systems, as well as turnover in the vehicle fleet. As seen in Table IV.C-10, impacts associated with CO concentrations in 2012 under the full build out of the Sepulveda/Rosecrans Rezoning Site would be less than significant. The number of vehicles at the analyzed intersections in 2007 would be less than those occurring during 2012. Therefore, the State and federal 1-hour and 8-hour CO standards would not be exceeded as a result of traffic generated by the proposed Plaza El Segundo. Thus, impacts with respect to CO hotspots would be less than significant.

2003 AQMP Consistency

Sepulveda/Rosecrans Site Rezoning

A project is consistent with the AQMP if it is consistent with the population, employment and household assumptions, which were used in the development of the AQMP. Regarding the 2003 AQMP, a project is consistent with the plan if the project demonstrates that it would not contribute to future violations of federal and State ambient air quality standards and is consistent with growth projections.¹² Consistency with growth projections is especially important for projects involving general plan amendments. SCAG traffic analysis is based on General Plan information, and the 2003 AQMP air quality impacts are based on SCAG traffic data. As indicated in Section IV.J, Population, Housing, and Employment, the Sepulveda/Rosecrans Site Rezoning's increase in employment generation is within the SCAG projections for the City of El Segundo and the South Bay Cities Subregion.

Projects that are considered to be consistent with the AQMP growth projections should not interfere with attainment and should not contribute to the exceedance of an existing federal or State air quality standard because such 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 thresholds at the project level. The AQMP control strategy is based on projections from local general plans and population growth projections identified by the SCAG in the Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG). The AQMP also assumes that general development projects will implement strategies (mitigation measures) to reduce emissions during construction and operational phases of development. For this reason, projects that are consistent with, or are within the development levels identified in local general plans are considered consistent with air quality related regional plans, such as the 2003 AQMP.

The proposed Sepulveda/Rosecrans Site Rezoning would change the zoning classifications (Light Industrial, M-1, and Heavy Industrial, M-2) and General Plan Land Use designation (Industrial) that are presently applicable to the proposed Sepulveda/Rosecrans Rezoning Site. The intensity of

¹² *Personal communication with James Koizumi, SCAQMD CEQA Section, November 21, 2003.*

development that would be permitted under the proposed zoning and General Plan designation (FAR 0.275) would be lower than that permitted under the existing General Plan designation and zoning (FAR 0.6). In essence, the level of development under the proposed zoning and general plan land use designation would be lower than the levels used as the basis for SCAG's growth projections for the City of El Segundo and South Bay Cities Subregion. Section IV.H, Land Use, includes analysis of the project's consistency with SCAG policies and demonstrates that the proposed Sepulveda/Rosecrans Site Rezoning would be consistent with these policies. Further, the cumulative impact analysis per SCAQMD's methodology, discussed under Cumulative Impacts below, indicates that the rate of growth in vehicle miles traveled would be lower than the rate of growth in employment, and therefore cumulative impacts from increased regional air emissions would not occur. For these reasons, the proposed Sepulveda/Rosecrans Site Rezoning would be consistent with the 2003 AQMP.

Plaza El Segundo Development

As indicated in Section IV.J, Population, Housing, and Employment, the Plaza El Segundo Development's increase in employment generation is within the SCAG projections for the City of El Segundo and the South Bay Cities Subregion. Because the proposed Plaza El Segundo Development would implement the proposed C-4 zoning on a portion of the proposed Sepulveda/Rosecrans Rezoning Site, and the proposed Sepulveda/Rosecrans Rezoning would be consistent with the 2003 AQMP for the reasons discussed above, the proposed Plaza El Segundo would also be consistent with the 2003 AQMP. Moreover, Section IV.H, Land Use, of this EIR demonstrates that the proposed Plaza El Segundo Development would be consistent with SCAG regional growth policies. Further, the cumulative impact analysis per SCAQMD's methodology, discussed under Cumulative Impacts below, indicates that the proposed Plaza El Segundo Development's rate of growth in vehicle miles traveled is lower than its rate of growth in employment and therefore cumulative impacts from increased regional air emissions would not occur.

CUMULATIVE IMPACTS

Sepulveda/Rosecrans Site Rezoning

Section III.B of the Draft EIR lists 52 related projects within the area that may be affected by the proposed Sepulveda/Rosecrans Site Rezoning and Plaza El Segundo Development. The SCAQMD has set forth a methodological framework for assessing a project's cumulative regional air quality impacts. The SCAQMD CEQA Air Quality Handbook identifies three possible methods to determine cumulative impacts of land use projects. These methods differ from the cumulative impacts methodology typically used to address impacts of other CEQA issue area, in which impacts associated with past, present, and reasonably foreseeable future projects within a given service boundary or geographical area are measured and determined whether they are cumulatively considerable.

The SCAQMD's methods for considering cumulative impacts are based on performance standards and emission reduction targets necessary to attain the State and federal air quality standards identified in the

AQMP and can be used to determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is less than significant (Guidelines Section 15130(a)(3)). The AQMP was prepared to accommodate growth, reduce pollution in the basin, and to minimize the fiscal impact that pollution control measures have on the economy. As such these standards and emission targets also take into account SCAG's forecasted future regional growth. Therefore, the analysis of cumulative impacts focuses on determining whether the project is consistent with forecasted future regional growth. If the analysis shows that an individual project is consistent with the AQMP performance standards, the project's cumulative impacts could be considered to be less than significant. If the analysis shows that the project does not comply with the standards, then cumulative impacts are considered to be significant, unless there is other pertinent information to the contrary. In summary, if all cumulative projects are individually consistent with the growth assumptions upon which the SCAQMD's AQMP is based, then future development would not impede the attainment of ambient air quality standards and significant cumulative air quality impacts would not occur.

According to the Air Resources Board's (ARB) transportation performance standards, the rate of growth in vehicle miles traveled (VMT) and trips should be held to the rate of population or employment growth. Compliance with this performance standard for development projects (including general plan amendments) is assessed by determining the population and/or employment for the projected buildout year of the project, and comparing it with the population and/or employment figures projected for the local jurisdiction (e.g., Los Angeles County) for the same year. In other words, the rate of VMT (and hence vehicular air emissions) growth for the project should be equal to or lower than the project's population and/or employment growth. If this does not occur, the project's incremental effect on air quality would be cumulatively considerable.

Therefore, based on SCAQMD's methodology, the proposed Sepulveda/Rosecrans Site Rezoning would have a cumulative regional air quality impact if the ratio of daily project employee VMT to daily countywide VMT exceeds the ratio of daily project employees to daily countywide employees. As indicated in Section IV.J, Population, Housing, and Employment, of this Draft EIR, the proposed Sepulveda/Rosecrans Site Rezoning would generate an estimated total of approximately 1,900 employees. An assessment of the potential cumulative impact of the proposed Sepulveda/Rosecrans Site Rezoning, based on its employment generation and SCAQMD's cumulative impacts methodology, is presented in Table IV.C-12. As indicated, the daily project to countywide VMT ratio is not greater than the project to countywide employee ratio. Therefore, the proposed Sepulveda/Rosecrans Site Rezoning would not result in significant cumulative impacts related to regional air quality.

Table IV.C-12
Cumulative Air Quality Impacts of Proposed Sepulveda/Rosecrans Site Rezoning
and Plaza El Segundo Development

Project Daily VMT ^a	45,011
Countywide Daily VMT ^b	198,354,000
Daily VMT Ratio	0.000239
Project Employment	1,900
Countywide Employment ^c	4,701,625
Employment Ratio	0.000404
Significance Test (Daily VMT Ratio Greater than Employment Ratio)	NO (Not Significant)
<p>a. Conservative figure assuming each of the 1,900 employees drives their own car and makes 2.3 trips per day with an urban trip length of 10.3 miles.</p> <p>b. www.scag.ca.gov/modeling/2000mv.htm</p> <p>c. SCAG</p> <p>Source: Manford Planning Services, November 2003.</p>	

Plaza El Segundo Development

The proposed Plaza El Segundo Development would implement the proposed C-4 zoning on a portion of the proposed Sepulveda/Rosecrans Rezoning Site. Since the total development associated with the proposed Sepulveda/Rosecrans Site Rezoning would not result in cumulative regional air quality impacts as indicated in Table IV.C-12 above, and the proposed Plaza El Segundo Development is included within the total development that could occur under the proposed Sepulveda/Rosecrans Site Rezoning, the proposed Plaza El Segundo Development would not result in cumulative regional air quality impacts.

SUBSEQUENT ENVIRONMENTAL DOCUMENTATION

Subsequent environmental documentation must be prepared for any future development project proposed within the Sepulveda/Rosecrans Rezoning Site to identify emissions associated with construction of that specific development. The subsequent environmental documentation must address the following:

- C-1** Prior to implementation of specific development projects, impacts associated with construction emissions must be examined in light of this Program EIR to determine whether a new Initial Study would be required to be prepared leading to either an EIR or Negative Declaration. This examination must provide quantified estimates of construction emissions based upon the specific site, schedule and construction equipment utilization characteristics of the proposed development and compare the estimated emissions to the SCAQMD thresholds for construction emissions. The analysis must incorporate the mitigation

measures identified below as appropriate, along with any other mitigation measures identified by the project-specific analysis.

MITIGATION MEASURES

Sepulveda/Rosecrans Site Rezoning

- C-1** Prior to implementation of specific development projects, impacts associated with construction emissions must be examined. This examination must provide quantified estimates of construction emissions based upon the specific site, schedule and construction equipment utilization characteristics of the proposed development and compare the estimated emissions to the SCAQMD thresholds for construction emissions. The analysis must incorporate the mitigation measures identified below as appropriate, along with any other mitigation measures identified by the project-specific analysis.

Construction

The following is a list of feasible control measures that the SCAQMD recommends for construction emissions of PM₁₀. These mitigation measures must be implemented for all areas where construction activities associated with the proposed Sepulveda/Rosecrans Site Rezoning would occur.

Fugitive Dust, PM10

Compliance with SCAQMD Rule 403, including but not limited to the following:

- C-2** The construction area and vicinity (500-foot radius) must be swept (preferably with water sweepers) and watered at least twice daily. Site wetting must occur often enough to maintain a 10 percent surface soil moisture content throughout all earth moving activities.
- C-3** All paved roads, parking and staging areas must be watered at least once every two hours of active operations.
- C-4** Site access points must be swept/washed within thirty minutes of visible dirt deposition.
- C-5** On-site stockpiles of debris, dirt or rusty material must be covered or watered at least twice daily.
- C-6** All haul trucks hauling soil, sand, and other loose materials must either be covered or maintain two feet of freeboard.
- C-7** All haul trucks must have a capacity of no less than twelve and three-quarter (12.75) cubic yards.

- C-8** At least 80 percent of all inactive disturbed surface areas must be watered on a daily basis when there is evidence of wind drive fugitive dust.
- C-9** Operations on any unpaved surfaces must be suspended when winds exceed 25 mph.
- C-10** Traffic speeds on unpaved roads must be limited to 15 miles per hour.
- C-11** Operations on any unpaved surfaces must be suspended during first and second stage smog alerts.

For all construction emissions, the following measure must apply:

- C-12** The applicant must develop and implement a construction management plan, as approved by the City of El Segundo, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:
 - a. Configure construction parking to minimize traffic interference.
 - b. Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person).
 - c. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable.
 - d. Re-route construction trucks away from congested streets.
 - e. Consolidate truck deliveries when possible.
 - f. Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.
 - g. Maintain equipment and vehicle engines in good condition and in proper tune as per manufacturer's specifications and per SCAQMD rules, to minimize exhaust emissions.
 - h. Suspend use of all construction equipment operations during second stage smog alerts. Contact the SCAQMD at (800) 242-4022 for daily forecasts.
 - i. Use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
 - j. Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel if readily available at competitive prices.

- k. Use propane- or butane-powered on-site mobile equipment instead of gasoline if readily available at competitive prices.

Operation

Regional emissions of CO, ROG, PM₁₀, and NO_x are associated with vehicular traffic. No feasible mitigation measures are available to reduce vehicle travel and related tail pipe exhaust emissions associated with the proposed Sepulveda/Rosecrans Site Rezoning.

Plaza El Segundo Development

Construction

The following is a list of feasible control measures that the SCAQMD recommends for construction emissions of PM₁₀. These mitigation measures must be implemented during construction activities associated with the proposed Plaza El Segundo.

Fugitive Dust, PM10

Compliance with SCAQMD Rule 403, including but not limited to the following:

- C-13** The construction area and vicinity (500-foot radius) must be swept (preferably with water sweepers) and watered at least twice daily. Site wetting must occur often enough to maintain a 10 percent surface soil moisture content throughout all earth moving activities.
- C-14** All paved roads, parking and staging areas must be watered at least once every two hours of active operations.
- C-15** Site access points must be swept/washed within thirty minutes of visible dirt deposition.
- C-16** On-site stockpiles of debris, dirt or rusty material must be covered or watered at least twice daily.
- C-17** All haul trucks hauling soil, sand, and other loose materials must either be covered or maintain two feet of freeboard.
- C-18** All haul trucks must have a capacity of no less than twelve and three-quarter (12.75) cubic yards.
- C-19** At least 80 percent of all inactive disturbed surface areas must be watered on a daily basis when there is evidence of wind drive fugitive dust.
- C-20** Operations on any unpaved surfaces must be suspended when winds exceed 25 mph.

- C-21** Traffic speeds on unpaved roads must be limited to 15 miles per hour.
- C-22** Operations on any unpaved surfaces must be suspended during first and second stage smog alerts.

For all construction emissions, the following measure must apply:

- C-23** The applicant must develop and implement a construction management plan, as approved by the City of El Segundo, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:
 - a. Configure construction parking to minimize traffic interference.
 - b. Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person).
 - c. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable.
 - d. Re-route construction trucks away from congested streets.
 - e. Consolidate truck deliveries when possible.
 - f. Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.
 - g. Maintain equipment and vehicle engines in good condition and in proper tune as per manufacturer's specifications and per SCAQMD rules, to minimize exhaust emissions.
 - h. Suspend use of all construction equipment operations during second stage smog alerts. Contact the SCAQMD at (800) 242-4022 for daily forecasts.
 - i. Use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
 - j. Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel if readily available at competitive prices.
 - k. Use propane- or butane-powered on-site mobile equipment instead of gasoline if readily available at competitive prices.

Operation

Regional emissions of CO, ROG, PM₁₀, and NO_x are associated with vehicular traffic. No feasible mitigation measures are available to reduce vehicle travel and related tail pipe exhaust emissions associated with the proposed Plaza El Segundo.

LEVEL OF IMPACT AFTER MITIGATION

Construction

Sepulveda/Rosecrans Site Rezoning

Site-watering (Mitigation Measure C-2) typically reduces dust emission levels by approximately 50 percent. Reduction of up to 90 percent is possible through the use of other aggressive dust control measures reflected in mitigation measures C-3 through C-12 above. However, in order to employ a conservative approach, total reductions in PM₁₀ emissions resulting from implementation of mitigation measures C-1 through C-12 was assumed in the following analysis to be 50 percent. Thus, with implementation of mitigation measures C-1 through C-12, PM₁₀ emissions would be reduced during the grading/excavation phase of construction to a level below SCAQMD significance threshold of 150 ppd. Emissions of CO, ROG and NO_x would be significant and unavoidable under the proposed Sepulveda/Rosecrans Site Rezoning.

During any time frame where construction activities are taking place on a portion of the proposed Sepulveda/Rosecrans Rezoning Site simultaneously with the operation of the proposed Plaza El Segundo, the conservative assumption of 50 percent reduction in construction dust emissions resulting from the implementation of mitigation measures C-1 through C-12 for the Sepulveda/Rosecrans Site Rezoning would not be sufficient to reduce the combined impacts to less than significant levels. Thus impacts associated with PM₁₀, ROG, NO_x, and CO emissions would be significant and unavoidable during any overlap period.

Plaza El Segundo

With implementation of mitigation measures C-13 through C-23, PM₁₀ emissions would be reduced by approximately 50 percent during the grading/excavation phase for the construction of Plaza El Segundo, thereby reducing emissions to a level below SCAQMD significance threshold of 150 ppd. Impacts associated with ROG and NO_x emissions will be significant and unavoidable during the construction of the proposed Plaza El Segundo Development.

Operation

Sepulveda/Rosecrans Site Rezoning

Regional operational emissions associated with the proposed Sepulveda/Rosecrans Site Rezoning would exceed the SCAQMD significance thresholds for CO, ROG, PM₁₀, and NO_x and would be significant and unavoidable. Impacts associated with local CO concentrations would be less than significant.

Plaza El Segundo

Regional operational emissions associated with the proposed Plaza El Segundo Development would exceed the SCAQMD significance thresholds for CO, ROG, PM₁₀, and NO_x and would be significant and unavoidable. Impacts associated with local CO concentrations would be less than significant.