TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

***Impacts determined not to be significant are addressed in this EIR under **Section VII, Impacts Determined to be Insignificant**, and have been omitted from the Impact Section of this report.

TABLE OF CONTENTS (Continued)

Section

LIST OF FIGURES

LIST OF TABLES

IV.B AIR QUALITY

INTRODUCTION

The proposed project site is located in the northwest portion of the City of Los Angeles and within the South Coast Air Basin of California, a 6,600-square-mile area encompassing Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. Bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east, the South Coast Air Basin is an area of high air pollution potential. This section provides an overview of the existing conditions of air quality within this air basin and proposed project area. It also discusses the potential impacts to air quality as a result of the development of the proposed project. Where potential impacts area identified, mitigation measures are recommended to reduce such impacts, if possible, to acceptable levels.

MOBILE AND STATIONARY AIR QUALITY

Environmental Setting

Smog and Its Causes

Smog is a general term based on the words smoke and fog and is used to describe dense, visible air pollution. Although some air pollutants are colorless, smog is commonly used to describe the general concentrations of pollutants in the air. Smog is formed when combustion emissions and gaseous emissions, such as volatile organic compounds (VOC) and oxides of nitrogen (NO_x), undergo photochemical reactions in sunlight to form ozone (O_3). Ozone is a gas that, in the upper atmosphere, helps to shield the Earth from harmful radiation. However, in the lower atmosphere where people live, ozone poses health risks and damages crops, rubber, and other materials. Particulates, such as soil and dust materials, and vehicle exhaust particulates often mix with ozone, carbon monoxide (CO), and other compounds and create a brownish, haze in the air. "Smog episode" warnings occur when high concentrations of ozone that could endanger or cause harm to the public are predicted.

The topography and climate of the South Coast Air Basin combine to make it an area of high smog potential. During the summer months, a warm air mass frequently descends over the lower, cool, moist marine air layer of the Basin. The warm upper layer forms a cap over the marine layer and inhibits the air pollutants generated near the ground of the Air Basin from dispersing upward, while light

summer winds and the surrounding mountains limit horizontal dispersion. Concentrating volumes of pollutants in this manner allows the summer sunlight to generate high levels of smog. During the late night and early morning hours in the winter, cool ground temperatures and very light winds cause extremely low inversions and air stagnation, which trap CO and NO_x. On summer or winter days when no inversions occur, or when winds average 25 miles per hour or more, no important smog effects occur.

The air pollutants within the South Coast Air Basin are generated by both stationary and mobile sources. Stationary sources are known as "point sources" or "area sources". Point sources have one or more emission sources at a single facility, while area sources are widely distributed and produce many small emissions. Point sources are usually associated with manufacturing and industrial uses, which include sources that produce electricity or process heat, such as refinery boilers or combustion equipment. Examples of area sources include residential water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as barbecue lighter fluid or hair spray. "Mobile sources" refer to operational and evaporative emissions from motor vehicles. They account for over 95 percent of the CO emissions, approximately two-thirds of the SO_x emissions, three-quarters of the NO_x emissions, and one-half of the VOC found within the Air Basin.[1]

Regulatory Agencies and Responsibilities

Air quality issues within the South Coast Air Basin are 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 primarily responsible for improving the air quality within the Air Basin are discussed below along with their individual responsibilities.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) is responsible for enforcing the 1990 amendments to the Federal Clean Air Act (CAA) and the national ambient air quality standards (Federal standards) that it establishes. These standards identify levels of air quality for six "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The six criteria pollutants include ozone, CO, nitrogen dioxide (NO_2 – a form of NO_x), sulfur dioxide (SO_2 – a form of SO_x), particulate matter 10 microns in size and smaller (PM_{10}), and lead. The U.S. EPA also has regulatory and

1 South Coast Air Quality Management District, CEQA *Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1994), p. 3-5.

enforcement jurisdiction over emission sources beyond State waters (outer continental shelf), and those that are under the exclusive authority of the Federal government, such as aircraft, locomotives, and interstate trucking.

In response to its enforcement responsibilities, the EPA requires each state to prepare and submit a State Implementation Plan (SIP) that describes how the state will achieve the Federal standards by specified dates, depending on the severity of the air quality within the state or air basin. The South Coast Air Basin is classified by the EPA as an extreme nonattainment area for ozone (the only area in the nation to be classified as such), a serious nonattainment area for CO, and a nonattainment area for NO_x and PM_{10}. Under the compliance timetables, the Air Basin must achieve attainment status for ozone within 20 years. To do so, the Air Basin must show a 15 percent reduction from its 1990 basin-wide emissions inventory within six years, and a three percent annual reduction thereafter for the remainder of the 20 years. For the other nonattainment pollutants, the Air Basin must achieve attainment status by the most expeditious date that can be achieved, but no later than five years from the date the area was designated nonattainment. If the Air Basin experiences difficulty doing so, the U.S. EPA may extend the period for attainment for an additional 10 years.

In July 1997, the EPA announced new health-based standards for ozone and $PM_{2.5}$. $PM_{2.5}$ is a subset of PM_{10} and a microscopic form of particle pollution primarily composed of diesel soot and other combustion by-products. To achieve the new standards, the Air Basin will have to go beyond current plans. The South Coast Air Quality Management District (SCAQMD) will have until 2003 to develop a plan to meet the new ozone standard and until 2012 at the latest to meet that standard. A $PM_{2.5}$ plan will have to be developed by 2006, and the standard met by 2015 at the latest.

California Air Resources Board

The California Air Resource Board (ARB), a department of the California Environmental Protection Agency (CALEPA), oversees air quality planning and control throughout California. It is primarily responsible for ensuring implementation of the 1989 amendments to the California Clean Air Act (CCAA), responding to the Federal CAA requirements, and for regulating emissions from motor vehicles and consumer products within the State. The ARB has established emission standards for vehicles sold in California and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

The amendments to the CCAA establish ambient air quality standards for the State (State standards) and a legal mandate to achieve these standards by the earliest practicable date. These standards

apply to the same six criteria pollutants as the CAA, and also include sulfate, visibility, hydrogen sulfide, and vinyl chloride. They are also more stringent than the Federal standards and, in the case of PM_{10} and SO_2, far more stringent.

Based on monitored pollutant levels, the CCAA divides nonattainment areas into three categories—moderate, serious, and severe—to which progressively more stringent requirements apply. The South Coast Air Basin is classified as a severe nonattainment area for ozone, CO, and NO_2. Under this classification, an air quality management plan is required to be prepared to include specific emission reduction strategies, and to meet specified milestones in implementing emission controls to achieve more healthful air. The new control strategies include an indirect and area source control program, best available retrofit control technology for existing sources, a program to mitigate all emissions from new and modified permitted stationary sources (no net increase), transportation control measures, and substantial use of low-emission vehicles (e.g., natural gas, or methanol-powered vehicles) by fleet operators. The CCAA also requires control measures to be ranked by priority and cost-effectiveness. The air quality management plans must achieve a reduction in emissions of five percent or more per year, or 15 percent or more in a three-year period for pollutants causing severe nonattainment.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments for the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. SCAG is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG also serves as the regional clearinghouse for projects requiring environmental documentation under Federal and State law. In this role, SCAG reviews proposed projects to analyze their impacts on SCAG's regional planning efforts.

Although SCAG is not an air quality management agency, it is responsible for several air quality planning issues. Specifically, as the designated Metropolitan Planning Organization (MPO) for the southern California region, it is responsible, pursuant to §176(c) of the 1990 amendments to the CAA, for providing current population, employment, travel, and congestion projections for regional air quality planning efforts. It is required to quantify and document the demographic and employment factors influencing expected transportation demand, including land use forecasts. Pursuant to California Health and Safety Code Section 40460(b), SCAG is also responsible for preparing and approving the portions of the Air Basin's air quality management plans relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and

strategies. SCAG's method of accomplishing these requirements is through the preparation of the Growth Management Chapter of the SCAG *Regional Comprehensive Plan and Guide* (RCPG). The proposed project's consistency with the Growth Management Chapter of the RCPG is addressed in **Section IV.H, Land Use**, of this EIR.

South Coast Air Quality Management District

With adoption of the 1977 Lewis-Presley Air Quality Management Act, the management of air quality in the South Coast Air Basin became the responsibility of the SCAQMD. Under the Act, the SCAQMD is responsible for bringing air quality in Air Basin into conformity with Federal and State air quality standards. Specifically, the SCAQMD is responsible for monitoring ambient air pollutant levels throughout the Air Basin and for developing and implementing attainment strategies to ensure that future emissions will be within Federal and State standards.

SCAQMD Air Quality Management Plan

In response to the CAA and CCAA requirements to bring air emissions within healthful levels, the SCAQMD has prepared a series of air quality management plans (AQMPs), the most recent of which was adopted by the Governing Board on November 16, 1996. This AQMP, referred to as the 1997 AQMP, was prepared to comply with provisions of the 1989 CCAA and the 1990 CAA amendments to reduce the high levels of pollutants within the Air Basin, while, at the same time, accommodate growth and minimize the fiscal impact pollution control measures have on the local economy. Principal control policies and measures proposed by the SCAQMD to accomplish this task include extensive use of clean fuels, transportation control measures, market incentives, and facility permitting. Many of these policies and measures have been adopted as rules by the SCAQMD Governing Board or may be adopted as rules in the future.

The 1997 AQMP projects attainment of both Federal and State air quality requirements and bases these projections on several assumptions. For example, the AQMP assumes that general development projects will be constructed in accordance with SCAG's population growth projections published in its RCPG and that general development projects will implement strategies (mitigation measures) to reduce emissions generated during their construction and operational phases. Projects which are consistent with the growth projections and which implement all feasible mitigation measures are generally considered consistent with the AQMP. The proposed project's consistency with the AQMP is discussed later in this Draft EIR section.

As discussed previously, the SCAQMD will have until 2003 to develop a plan to meet the new Federal ozone standard and until 2006 to meet the new Federal $PM_{2.5}$ standard.

SCAQMD Rules and Regulations

The SCAQMD is responsible for limiting stationary and mobile source emissions throughout the Air Basin through specific rules and regulations that have been adopted by the SCAQMD Governing Board and through specific pollution reduction measures that must be implemented in association with various uses and activities. Adopted rules, which are subject to on-going refinement by the SCAQMD, not only regulate the emissions of the Federal criteria pollutants previously identified, but also toxic emissions and acutely hazardous materials.[2] The proposed project would be subject to SCAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts (see the mitigation measures discussion of this EIR section). Emissions sources subject to these rules are regulated by the SCAQMD's permitting process through which the SCAQMD also monitors the amount of stationary emissions being generated Air Basin-wide and uses this information to develop the AQMP.

CEQA *Air Quality Handbook*

In 1994, the SCAQMD prepared its CEQA *Air Quality Handbook* as a guidance document to assist local government agencies and consultants in preparing environmental documents for projects subject to the California Environmental Quality Act (CEQA). The *Air Quality Handbook* is an advisory document and local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that the SCAQMD uses when reviewing and commenting on the adequacy of environmental documents, such as this EIR. It recommends thresholds for use in determining whether projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. Although the CEQA *Air Quality Handbook* has been adopted by the Governing Board of the SCAQMD, it does not, nor does it intend to supersede a local jurisdiction's CEQA procedures. This EIR was prepared following the recommendations of the SCAQMD found in the SCAQMD's CEQA *Air Quality Handbook*.

2 Defined by the Federal government as an air pollutant to which no ambient air quality standard is applicable and which, in the judgment of the administrator of the U.S. EPA, may result in an increase in mortality, serious irreversible illness, or incapacitating reversible illness.

Local Governments

Local governments, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through their police power and land use decision-making authority. Specifically, local governments are responsible for the mitigation of emissions resulting from land use decisions and for the implementation of transportation control measures as outlined in the AQMP.[3] The AQMP assigns local governments certain responsibilities to assist the Air Basin in meeting air quality goals and policies. In general, a first step toward implementation of a local government's responsibility is accomplished by identifying air quality goals, policies, and implementation measures in its general plan. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality, by requiring such improvements as bus turnouts, energy-efficient street lights, and synchronized traffic signals.[4] In accordance with CEQA requirements and the CEQA review process, local governments assess air quality impacts, require mitigation of potential air quality impacts by conditioning discretionary permits, and monitor and enforce implementation of such mitigation.[5]

Existing Conditions

Regional Air Quality

The SCAQMD samples ambient air at 32 monitoring stations in and around the Air Basin. The Air Basin has exceeded Federal and State standards for ozone, CO, NO_2, and PM_{10}. Levels of ozone exceed both national and state standards everywhere in the Air Basin. In 1989, the peak ozone reading was almost three times the Federal standard. The Los Angeles urban area exceeds this standard more frequently than any other area in the United States, and also records the highest peak readings. National and state standards for CO are exceeded in more densely populated Los Angeles and Orange counties. The South Coast Air Basin is the only area in the nation considered to be a nonattainment area for NO_2. However, the Federal standard has not been exceeded during the last three years; three years of no exceedances are required to reconsider the attainment status of an air basin. The number of readings over the standard fluctuates from year to year, depending on weather patterns. PM_{10} levels regularly exceed the Federal and State standards in Los Angeles, Riverside, and San Bernardino counties, and state standards in Orange County. Sulfur dioxide and lead levels in all areas of the Air Basin are below national and state standard limits.

---

3 CEQA *Air Quality Handbook*, p. 2-2.
4 Ibid., p. 2-2.
5 Ibid.

Local Air Quality

The proposed project site is located in the Sepulveda Pass of the Santa Monica Mountains, along Mountaingate Drive west of Sepulveda Boulevard. The project site is approximately 15 miles northwest of downtown Los Angeles and is situated between the communities of Encino to the north and Bel Air and Brentwood to the south. The predominant sources of air pollutant emissions in the area surrounding the project are mobile sources (e.g., automobile and air traffic). Traffic traveling on the I-405 (San Diego Freeway) and Sepulveda Boulevard contributes the major portion of mobile source air emissions. Area sources, including household heating and solvent use, also contribute to local air emissions.

Ambient air quality in the area surrounding the proposed project site is measured at the nearest SCAQMD pollutant monitoring station, which is station number 091 or otherwise identified as the Northwest Coast of L.A. County (NW Coast L.A. Co) station, located on the Veterans Administration Facility grounds in Westwood. **Table IV.B-1**, below, lists the air quality readings at Station 091 from 1997 through 2001. The SCAQMD monitors ozone, carbon monoxide, nitrogen dioxide, and total suspended particulates at this monitoring station. PM_{10} levels are not monitored at this station or any monitoring station in the general vicinity. The nearest station that monitors PM_{10} is in downtown Los Angeles (Central L.A.), Station 087. The last five years of PM_{10} data from the Central L.A. station are also shown in **Table IV.B-1**. PM_{10} levels in the project vicinity are probably slightly lower than those in Central L.A., as development in the project vicinity is less dense, and void of heavy industrial emission sources. Also, as the project vicinity is more coastal than Central L.A., westerly ocean breezes more often disperse pollutants, thus lowering ambient concentrations.

Local Vicinity Emissions

The vicinity of the project site is characterized mainly by residential land uses. Emissions sources include stationary activities, such as space heating, cooking, and water heating, and mobile activities, primarily automobile traffic. Motor vehicles are the primary sources of pollutants within the project vicinity.

Table IV.B-1
Ambient Pollutant Concentrations Registered in the Northwest Coast of L.A. County Area

Pollutant	Standards [1,2]	Year 1997	1998	1999	2000	2001
OZONE (O_3)						
Maximum 1-hour concentration monitored (ppm)		0.11	0.13	0.12	0.14	0.09
Number of days exceeding Federal standard	>0.12 ppm	0	1	0	1	0
Number of days exceeding State standard	>0.09 ppm	6	7	4	8	1
CARBON MONOXIDE (CO)						
Maximum 1-hour concentration monitored (ppm)		7	7	6	6	4
Number of days exceeding Federal 1-hour standard	>35.0 ppm	0	0	0	0	0
Number of days exceeding State 1-hour standard	>20.0 ppm	0	0	0	0	0
Maximum 8-hour concentration monitored (ppm)		4.4	4.5	3.8	4.3	3.0
Number of days exceeding Federal 8-hour standard	≥9.5 ppm	0	1	0	0	0
Number of days exceeding State 8-hour standard	≥9.1 ppm	0	0	0	0	0
NITROGEN DIOXIDE (NO_2)						
Maximum 1-hour concentration monitored (ppm)		0.14	0.13	0.13	0.16	.11
Annual average monitored (ppm)		0.0285	0.0270	0.0291	0.0273	0.0251
Number of days exceeding 1-hour State standard	>0.25 ppm	0	0	0	0	0
TOTAL SUSPENDED PARTICULATES (TSP)						
Maximum 24-hr. concentration		98	91	103	87	81
Percent of samples over federal 24-hr. standard	>260 µg/m^3	0	0	0	0	0
Percent of samples over state 24-hr. standard	> 150 µg/m^3	0	0	0	0	0
Los Angeles Station Data						
SUSPENDED PARTICULATE MATTER (PM_{10})						
Maximum 24-hour PM_{10} concentration (µg/m^3)		102	80	88	80	97
Percent of samples exceeding Federal standard	>150 µg/m^3	0	0	0	0	0
Percent of samples exceeding State standard	>50 µg/m^3	25.0	16.9	33	15	20

Sources: South Coast Air Quality Management District, 1997 Air Quality Data, 1998 Air Quality Data, 1999 Air Quality Data, 2000 Air Quality Data and 2001 Air Quality Data (Diamond Bar, California: South Coast Air Quality Management District).
[1] Parts by volume per million of air (ppm), micrograms per cubic meter of air (µg/m^3), or annual arithmetic mean (aam).
[2] Pollutants shown are those for which the South Coast Air Basin has been designated as a Federal non-attainment area.

As previously stated, 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, as the preferred method of estimating pollutant concentrations at various locations. CALINE4 adds roadway-specific CO emissions calculated from peak 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. This methodology assumes worst-case conditions (i.e., wind speed of less than one meter per second and extreme atmospheric stability) and provides a screening of maximum, worst-case, CO concentrations.

The SCAQMD also recommends that the CO analysis focus on "sensitive receptors". Sensitive receptors are populations that are more susceptible to the effects of air pollution than are the population at large.[6] The SCAQMD identifies the following as sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.[7]

Two intersections in the project vicinity, Mountaingate Drive and Sepulveda Boulevard, and Sepulveda Boulevard and Skirball Center Drive, were identified as those likely to be most affected by project-generated traffic. Existing CO level data from the NW Coast L.A. Co monitoring station, future predictions in the CEQA *Air Quality Handbook*, traffic counts and the CALINE4 model were utilized to estimate existing CO levels at the study intersections. As shown in **Table IV.B-2**, these intersections are not CO hotspots under existing conditions. The intersections in the immediate vicinity of the project site, namely Mountaingate Drive and Stoney Hill Road, and Mountaingate Drive and Canyonback Road, are bordered by CO sensitive residences. However, traffic volumes at these intersections are very light; thus, high CO levels are not expected. As such, CO levels were not estimated at these intersections.

Table IV.B-2
Existing Carbon Monoxide Concentrations

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]
Sepulveda Boulevard and Skirball Center Drive	11.4	6.7	10.4	6.0	9.0	5.0
Sepulveda Boulevard and Mountaingate Drive	11.1	6.5	10.2	5.8	8.9	4.9

Source: Impact Sciences, Inc. Emissions calculations are provided in ***Appendix B****.*
[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.

Site Specific Emissions

As the proposed project site is currently undeveloped, there are no existing site specific air emissions.

6 CEQA *Air Quality Handbook*, p. 5-1.
7 CEQA *Air Quality Handbook*, p. 5-7.

Environmental Impact Analysis

Significance Threshold Criteria

New and modified projects will often affect regional air quality both directly and indirectly. When determining the extent of a project's environmental impacts and the significance of such impacts, the project should be compared to established thresholds of significance. The City of Los Angeles has not officially adopted any thresholds of significance for determining air quality impacts. Therefore, in the absence of such thresholds, EIRs prepared for projects in the City routinely refer to the thresholds recommended by the SCAQMD in its CEQA *Air Quality Handbook*. The following discusses the thresholds for both construction and operational emissions generated by the proposed project.

Construction Emission Thresholds

The SCAQMD recommends that projects with construction-related emissions that exceed any of the following emissions thresholds should be considered significant:

- 75 pounds per day of ROG (VOC)
- 100 pounds per day of NO_x
- 550 pounds per day of CO
- 150 pounds per day of PM_{10}
- 150 pounds per day of SO_x

Operational Emissions

The SCAQMD has recommended two sets of air pollution thresholds to assist lead agencies in determining whether or not the operational phase of a project's development would be significant. These are identified in the following discussion under Primary Effects and Secondary Effects. The SCAQMD recommends that a project's impacts be considered significant if either of these thresholds is exceeded.

Primary Effects

The SCAQMD has established these thresholds, in part, based on Section 182(e) of the Federal CAA that identifies 10 tons a year of volatile organic gases as the significance level for stationary sources of emissions in extreme non-attainment areas for ozone. As discussed earlier, ROG, NO_x, and SO_x undergo

photochemical reactions in sunlight to form ozone and the Air Basin is the only extreme non-attainment area for ozone in the United States. This emission threshold has been converted to a pound per day threshold for the operational phase of a project. Thresholds for other emissions have been identified based on their levels in the Air Basin in comparison with ozone levels. Because they are converted from a CAA threshold, the SCAQMD believes that these thresholds are based on scientific and factual data.[8] Therefore the District recommends that the following thresholds be used by lead agencies in making a determination of operation-related project significance:

- 55 pounds per day of ROG (VOC)
- 55 pounds per day of NO_x
- 550 pounds per day of CO
- 150 pounds per day of PM10
- 150 pounds per day of SO_x

Secondary Effects

The L.A. CEQA *Thresholds Guide* and the SCAQMD recommend that projects meeting any of the following criteria also be considered to have significant air quality impacts:

- Project could interfere with the attainment of the Federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation;
- Project could result in population increases within an area that would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's build-out year;
- Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot or the incremental increase due to the project is equal or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard;
- Impact significance could also derive from exposure to malodorous, toxic, carcinogenic, or hazardous air contaminants, or if the project creates an objectionable odor at the nearest sensitive receptor.

Project Impacts

Development of the proposed project would result in temporary air emissions during the project construction phase, and permanent emission associated with occupancy of the proposed homes. Construction phase emissions would be generated by stationary construction equipment, and from mobile

8 CEQA *Air Quality Handbook*, p. 6-1.

construction vehicles. Throughout the occupancy of the completed project, motor vehicle travel to and from the project site, as well as on-site stationary area sources such as water and space heaters, landscape maintenance equipment, and consumer products, would result in day to day air emissions. An assessment of construction and operational emissions, and recommended significance threshold criteria, is presented below based on the methodologies recommended in the SCAQMD's CEQA *Air Quality Handbook*.

Construction Impacts

Development of the proposed project would involve preparation of 29 homes. The duration of the entire construction period is estimated at 2 years (grading, site preparation and home construction). Potential air quality impacts related to construction include soil disturbance and resulting PM_{10} emissions during site preparation, and exhaust emissions from grading and construction vehicles, equipment, and related activities. Such impacts from project construction could have a direct significant effect on surrounding residences, some of which are located near the area of proposed construction activities.

During site preparation, grading and placements of fill over portions of the site would be required in order to develop an adequate street system and associated home pads. Two fill locations have been selected with one located on a portion of the Mission Canyon 8 landfill, with the other area in the canyon immediately adjacent to Canyonback Ridge. As such, potential effects associated with fugitive dust would be minimized to the greatest extent possible to the existing residential uses given the location of these balance sites. Heavy grading would be the first activity that would involve cutting and filling of slopes and other major earth moving activities. Following heavy grading activities fine grading, utility installation and road pavement would occur.

For the purpose of evaluation of construction impacts, a build-out period of two years from the end of the site preparation phase was assumed. The home building would likely be done in phases. The assumed home construction time frame is based on general review of time estimates for similar residential construction projects.

Air emissions during the construction phase would be generated by a combination of heavy-duty construction vehicles, on-site stationary sources, and on- and off-road vehicles, including worker vehicles, and energy use. The amount of equipment and number of employees would vary with each construction phase and construction activity depending on the intensity of activity. Based on the proposed construction process, **Table IV.B-3** identifies estimated daily emissions associated with typical equipment for the construction activities associated with the proposed project. These emissions

assume that all of the construction equipment and activities occur simultaneously, and that construction equipment would operate continuously over an 8-hour period. Typically, this would not occur, as construction activities associated with similar projects tend to be sequential, and most equipment would operate at a fraction of each workday. For this reason, **Table IV.B-3** represents a worst case scenario for each construction phase of the project. These calculations also assume that appropriate dust control measures would be implemented during each phase of the project as required by SCAQMD Rule 403 - Fugitive Dust.

Table IV.B-3
Estimated Construction Emissions

	Emissions in Pounds per Day				
Emissions Source	**CO**	**VOC**	**NO_x**	**SO_x**	**PM_{10}**
SITE PREPARATION PHASE					
Equipment Emissions	81.60	17.76	238.72	46.26	33.40
On- and Off-Road Vehicles[1]	7.24	1.03	0.62	0.00	0.01
Fugitive Dust					
Excavation / Trenching	-	-	-	-	1.90
Grading and Earthmoving	-	-	-	-	242.68
Vehicles	-	-	-	-	292.68
Exposed Storage Piles	-	-	-	-	16.25
Mitigation Reduction:	0.00	0.00	0.00	0.00	386.13
Net Emission Totals:	88.84	18.79	239.34	46.26	200.79
SCAQMD Threshold:	550.00	75.00	100.00	150.00	150.00
Exceeds Threshold?:	NO	NO	YES	NO	YES
GENERAL CONSTRUCTION PHASE					
Equipment Emissions	10.19	3.88	35.44	6.01	4.02
On- and Off-Road Vehicles[1]	7.01	1.00	0.57	0.00	0.01
Fugitive Dust					
Excavation / Trenching	-	-	-	-	0.00
Grading and Earthmoving	-	-	-	-	0.00
Vehicles	-	-	-	-	103.12
Exposed Storage Piles	-	-	-	-	22.43
Mitigation Reduction:	0.00	0.00	0.00	0.00	87.88
Net Emission Totals:	17.21	4.88	36.01	6.01	41.70
SCAQMD Threshold:	550.00	75.00	100.00	150.00	150.00
Exceeds Threshold?:	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in ***Appendix B****.*
Totals in table may not appear to add exactly due to rounding in the computer model calculations.
[1] *Includes trucks, material transport vehicles, and construction employee vehicles.*

As shown, the emissions generated during the construction phase would exceed two of the thresholds of significance recommended by the SCAQMD. Therefore, the project's construction emissions would contribute substantially to an existing air quality violation on a regional basis, and would be considered significant.

Operations Impacts

Daily Emissions

The proposed project consists of 29 single-family homes. Operational emissions would be generated by both stationary and mobile sources as a result of normal day-to-day activity on the project site after occupation. Stationary emissions would be generated by the consumption of natural gas for space and water heating devices, the operation of landscape maintenance equipment, and from consumer products. Mobile emissions would be generated by the motor vehicles traveling to and from the project site.

The analysis of daily operational emissions has been prepared utilizing a computer model developed by Impact Sciences, Inc., which incorporates the data and methodologies identified in the SCAQMD's CEQA *Air Quality Handbook*. This was utilized since it is the most detailed methodology available to calculate project-related mobile emissions and it utilizes the most current emission factors (EMFAC7G) available from the California Air Resources Board. The SCAQMD has approved this model for use.[9] **Table IV.B-4** shows the daily emissions expected to occur in the year 2005 if the project is approved and developed. As shown, none of the SCAQMD recommended thresholds would be exceeded at the project level. Therefore, the daily emissions generated by the proposed project would not be significant.

Table IV.B-4
Estimated Day to Day Project Emissions

	Emissions in Pounds per Day				
Emissions Source	**ROG**	**NO_x**	**CO**	**PM10**	**SOX**
Vehicular Sources	3.4	3.7	12.5	0.1	0.2
Stationary Area Sources	0.5	0.5	0.3	0.0	0.0
Total Emissions:	3.9	4.2	12.8	0.1	0.2
SCAQMD Threshold:	550.0	55.0	55.0	150.0	150.0
Exceeds Threshold?:	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in ***Appendix B****.*
Totals in table may not appear to add exactly due to rounding in the computer model calculations.

Additional Indicators of Potential Air Quality Impacts

- **Project could interfere with the attainment of the Federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation, and; project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's build-out year.**

9 Interview with Steve Smith, South Coast Air Quality Management District, Diamond Bar, California, January 25, 1996.

As discussed earlier in this analysis, the 1997 AQMP is 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. 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. 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 following analysis discusses the proposed project's consistency with the AQMP.

The AQMP control strategy is based on projections from local general plans. For this reason, projects that are consistent with local general plans are considered consistent with air quality related regional plans, such as the AQMP. Development of the Mountaingate Planning Area has been anticipated by the City of Los Angeles. Ordinance No. 143,420, adopted by the Los Angeles City Council in May of 1972, outlines the conditions imposed on the overall Mountaingate Master Plan that anticipated a maximum number of 870 dwelling units. The proposed project is consistent with the Mountaingate Master Plan, and would result in the construction of approximately 29 homes within the Mountaingate Planning Area. To date, approximately 300 homes have been constructed within the Mountaingate Master Plan community. The proposed project would add 29 units with a total of 329 homes within Mountaingate, which is well below the 870 units originally envisioned and planned for Mountaingate. Thus, the population increase associated with the project has been accounted for by the City of Los Angeles and in the AQMP. As such, the project would be considered consistent with the AQMP and should not jeopardize attainment of State and Federal ambient air quality standards.

- **Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot.**

As was done to assess existing CO concentrations, the simplified CALINE4 procedure was used to predict future CO concentrations 50, 100, and 300 feet from the study intersections. The results of CO air emissions modeling for the proposed project are shown in **Table IV.B-5**. Future CO concentrations at the study intersections account for existing emissions, expected project emissions, and the emissions associated with future cumulative developments in the project vicinity, as identified in the project traffic study. Consistent with the traffic report, the year 2005 was chosen as the analysis year.

Table IV.B-5
Predicted Future Carbon Monoxide Concentrations

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]
Sepulveda Boulevard and Skirball Center Drive	9.9	5.9	8.8	5.2	7.5	4.2
Sepulveda Boulevard and Mountaingate Drive	9.4	5.5	8.5	4.9	7.2	4.0

Source: Impact Sciences, Inc. Emissions calculations are provided in ***Appendix B****.*
[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.

State and Federal 1-hour and 8-hour CO standards would not be exceeded under the future scenario. Furthermore, CO levels should be well below the more stringent State standards. As CO levels are forecasted to result in levels less than existing conditions, none of the adopted thresholds of significance would be exceeded. Thus, no significant CO hotspot impacts would result from the proposed project.

Objectionable Odors and Toxic Air Emissions

Objectionable odors and toxic air emissions are not expected to occur in any meaningful amounts in conjunction with day to day operation of the project as it involves development of 29 single-family homes. Also, future residents of the proposed homes would not be subjected to significant toxic air emissions, as there are not any major toxic emitters in the project vicinity. The project would not result in any significant impacts with regards to objectionable odors or toxic air emissions.

Cumulative Impacts

The SCAQMD's CEQA *Air Quality Handbook* identifies three possible methods to determine the cumulative significance of land use projects.[10] The SCAQMD has not identified thresholds to which the total emissions of all cumulative development can be compared. Instead, the SCAQMD's methods are based on performance standards and emission reduction targets necessary to attain the Federal and State air quality standards identified in the AQMP.

10 CEQA *Air Quality Handbook*, p. 9-12.

As discussed earlier, the 1997 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the Air Basin, to meet State and Federal air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. If the analysis shows that an individual project is consistent with the AQMP performance standards, the project's cumulative impact should be considered less than significant.[11] 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.[12] As discussed earlier, the population increase associated with the project has been accounted for by the City of Los Angeles and in the AQMP. As such, the project would be considered consistent with the AQMP and its performance standards. Based on the project's consistency with the AQMP, cumulative impacts are considered less than significant.

Mitigation Measures

Construction

Mitigation measures identified in Tables 11-2 and 11-3 of the CEQA *Air Quality Handbook* are intended to reduce the impacts of construction-related emissions to the greatest extent possible. The proposed project would already be subject to SCAQMD Rule 403 – Fugitive Dust, which would substantially reduce the amount of fugitive dust generated during grading activities. However, as shown in **Table IV.B-3**, even with all mitigation measures included during construction, air quality emissions would remain above the adopted threshold and would be unavoidably significant.

1. Configure construction parking to minimize traffic interference.

2. Provide temporary traffic controls when construction activities have the potential to disrupt traffic, to maintain traffic flow (e.g., signage, flag person, detours).

3. Schedule construction truck activities to off-peak traffic hours to the degree practicable.

4. Develop a construction traffic management plan that includes the following measures to address construction traffic that has the potential to affect traffic on public streets:

    - Rerouting construction traffic to avoid congested streets to the degree practicable;
    - Consolidating truck deliveries when possible, and;

11 Ibid., p. 9-12.
12 CEQA *Air Quality Handbook*, p. 9-12.

- Providing temporary dedicated turn lanes for movement of construction trucks and equipment on and off of the site.

5. Ground wetting shall be required to minimize fugitive dust during grading and construction, pursuant to SCAQMD Rule 403. Watering at least twice daily would potentially reduce fugitive dust by 50 percent.

6. Trucks utilized during grading and construction operations shall be free of loose soil before leaving the site.

7. Street sweeping of roads adjacent to the site should be performed to further reduce fugitive dust generated by traffic adjacent to the site.

Measures recommended in the SCAQMD's CEQA *Air Quality Handbook* that were rejected for the proposed project are listed below along with a discussion of why each measure was rejected:

- Prohibit truck idling in excess of two minutes: The nature of diesel motors does not lend them to constant turning on and off. Premature wear, and increased air emissions, are common results. It is also extremely difficult to effectively monitor the implementation of this measure, due to the size and configuration of the site, as contractors would be concerned about maintaining their equipment.
- Develop a trip reduction plan to achieve a 1.5 average vehicle ridership (AVR) for construction employees: SCAQMD Rule 2202 applies to all employers who meet certain criteria for implementing trip reduction measures. The requirement to achieve a specific AVR has been ruled unlawful by the Federal government and is no longer recommended.
- Implement a shuttle service to and from retail services and food establishments during lunch hour: Construction workers typically take a half-hour lunch at various times of the day and eat on-site food that was either brought by the workers (brown bag) or purchased from mobile caterers who travel to the site.

Day to Day Operations

The daily emissions generated by the proposed project are not considered significant. Therefore, no mitigation measures are recommended or required.

Adverse Impacts

Project construction emissions would remain unavoidably significant even with the implementation of all feasible mitigation measures.